## U. S.CATHOLIC HISTORICAL SOCIETY

WAIDSEEMIULLER'S COSMOGRAPHIAE INTRODUCTIO

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## UNITED STATES CATHOLIC HISTORICAL SOCIETY MONOGRAPH IV ie $y$

## THE <br> COSMOGRAPHIた INTRODUCTIO <br> of

## MARTIN WALDSEEMÜLLER <br> IN FACSIMILE

Followed by the Four Voyages of Amerigo Vespucci, with their Translation into English;
to which are added

> Waldseemüller's Two World Maps of 1507
> With an Introduction

BY
Prof. JOSEPH FISCHER, S.J., and Prof. FRANZ VON WIESER

> EDITED by

Prof. CHARLES GEORGE HERbERMANN, Ph.D.
NEW YORK
PUBLISHED BY
THE UNITED STATES CATHOLIC
HISTORICAL SOCIETY
1907


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## PREFACE

Four hundred years ago, in the little town of St. Dié in Lorraine, the geographer, Martin Waldseemüller, published two world maps, one for use as a globe, the other a flat projection of the then known world. These two maps were the first that gave to the new world the name "America," which it bears to this day. At the same time, Waldseemüller published a pamphlet of forty pages whose purpose was to explain the world map and its various features, its bearings on geographical sides, and its record of new discoveries. Here the author set forth his reason for calling the newly found continent "America." The pamphlet bore the title, Cosmographice Introductio or Introduction to Cosmography. By cosmography was meant geography, but Waldseemüller's little work has special reference to the world map published at the same time. As part of the Cosmographice Introductio appeared a Latin version of the four voyages of Amerigo Vespucci. It was to serve as a justification for calling the new world "America."

## Preface

The United States Catholic Historical Society, desirous of commemorating the four-hundredth anniversary of this notable event, publishes herewith a little memorial volume consisting:

First. Of an excellent facsimile reprint of the 1507 edition of the Cosmographice Introductio, which is one of the treasures of the University Library of Strasburg. This also includes the four voyages of Amerigo Vespucci, translated into Latin by Jean Basin of Sendacour. This copy belonged in 1510 to the celebrated humanist Beatus Rhenanus of Schlettstadt as appears from his name at the foot of the title-page.

Second. Of the translation of these two documents into English; the Cosmographice Introductio being translated by Prof. Edward Burke and the Four Voyages of Amerigo Vespucci by Dr. Mario E. Cosenza;

Third. Of an excellent reduced facsimile of Waldseemüller's map, $14 \times 26$ inches (the original is 8 feet long and $4 \frac{1}{2}$ feet high), from the only remaining copy of the map found in 1901 by Professor Joseph Fischer, S.J., at the castle of Wolfegg in Würtemberg;

Fourth. Of a facsimile copy of the Waldseemüller globe, now in the Hauslab-Liechtenstein collection at Vienna which was identified by Gallois;

Fifth. Of an introduction discussing the

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various problems raised by Waldseemüller's publications by Prof. Joseph Fischer, S.J., the discoverer of the Waldseemüller map, and Prof. F. von Wieser of the University of Innsbruck, whose authoritative scholarship on all questions touching Martin Waldseemüller is recognized everywhere.

It is needless to say a word on the appropriateness of this publication at the present time. Besides its sentimental value, the publication will offer the reader a copy of the oldest map cut in wood, and probably of the oldest wall map ever published. The map will exhibit a picture of the world such as it was known four hundred years ago and, we may add, substantially such as it was known to Columbus himself, while the facsimile of the pamphlet will present us with a piece of early Strasburg black letter.

The Editor desires to express his warm recognition of the courtesies of Professors Fischer, S.J., and von Wieser in preparing their authoritative exposition of the history and significance of the Cosmographica Introductio and the accompanying documents. He also returns his sincere thanks to Dr. Leigh Harrison Hunt, Professors William Fox, August Rupp, and Dr. J. Vincent Crowne of the College of the City of New York for valuable assistance given in the preparation of this work.

## INTRODUCTION

By Prof. JOS. Fischer, S.J., and Prof. FR. v. WIESER, Ph.D.

Four hundred years ago, on the 25 th of April, 1507, there appeared in a little out-of-the-way Vosges village, St. Dié, in Lorraine, a little book destined to attain great historical importance-a book which later became of the utmost interest, particularly for America. The title of the book is as follows:

COSMOGRAPHIÆ INTRODVCTIO, CVM QVIBVSDAM GEOMETRIÆ AC ASTRONOMIÆ PRINCIPIIS AD EAM REM NECESSARIIS.

Insuper quatuor Americi Vespucii Navigationes.

Universalis Cosmographiæ descriptio tam in solido quam plano, eis etiam insertis, quæ Ptholomæo ignota a nuperis reperta sunt.

As appears from the title, this book consists of two distinct parts: a geographical introduction (Cosmographice Introductio), and an account of the four voyages of Amerigo Vespucci (2uatuor Americi Vespucii Navigationes). Moreover,

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we see that two maps belong to the book-a globe and a plane projection, on which, in addition to what was already known to Ptolemy, all newly discovered lands are laid down.

This work in its four parts was destined to satisfy, in great measure, the lively interest evinced by all classes of that day in geographical research, and particularly in the marvelous accounts of the discoveries recently made by the Spanish and Portuguese.

The publication met with instant success, and in a few months several editions of the text were issued. The map, as Waldseemüller himself informs us in a later publication, attained in a short time a circulation of not less than a thousand copies.

So it came about that a proposal made in the text and carried out in the two maps, viz., that the newly discovered continent be called AMERICA, was at once generally adopted and prevailed despite later opposition.

On the four-hundredth anniversary of the christening of America, it seems right and proper to render more generally accessible in facsimile the four parts of the publication to which the New World owes its name.

The parts of the original publication of 1507 at present are scattered; they are bibliographical curiosities and accessible only to the select few.

## Introduction

Of the Cosmographice Introductio, printed at St. Dié, in 1507 , omitting mention of later reprints,' we have two chief editions: one of the 25 th of April, 1507 (vii Kal. Maii), and the other of the 29th of August, 1507 (iiii Kal. Sept.). ${ }^{2}$ Of each of these editions there are two variants. In one Martinus Ilacomilus (the Græcized form of the name of Waldseemüller), and in the other the Gymnasium Vosagense are named as the editors. These variations appear in the dedication of the work to the Emperor Maximilian I:

1. Divo Maximiliano Cesari Augusto Martinus Ilacomilus folicitatem optat.
2. Divo Maximiliano Casari semper Augusto Gynnasium (!) Vosagense non rudibus indoctisve artium humanitatis commentatoribus nunc exultans gloriam cun (!) folici desiderat principatu.

The Gymnasium Vosagense was composed of

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a small group of humanists ${ }^{1}$ which Canon Walter Ludd, secretary to Duke René II of Lorraine, had gathered about him, and which published his works in the printing-house erected there by Ludd himself.' Besides Walter Ludd, this literary circle counted among its most prominent members Nicholas Ludd, the nephew of Walter, Joh. Basinus Sendacurius, Philesius Ringmann, and Martin Waldseemüller. The last two, it is true, entered the service of the two Ludds ${ }^{3}$ only as paid printers; but there can be no doubt that Waldseemüller and Ringmann were the most learned members of the Gymnasium Vosagense-those of the greatest literary attainments. The question now arises how to explain the discrepant statements of the two editions, the one of which ascribes to the Gymnasium Vosagense, the other to Waldseemülleralone, the editorship of the Cosmographice Introductio.
${ }^{1}$ The word Gymnasium should not here be interpreted as an educational institution. As to the various significations of the Gymnasium Vosagense see A. v. Humboldt, Kritische Untersuchungen, Berlin, 1852 , ii, 363 ; D'Avezac, l.c.,p. II sq.; C. Schmidt, Histoire littéraire de l'Alsace, Paris, 1879, ii, II 1 ; L. Gallois, Le Gymnase Vosgien (Bulletin de la Société de géographie de l'Est 1900, p. 88 sqq.).
${ }^{2}$ "Officina mea literaria ;" by these words Ludd designates this printing-house in his letter of dedication which prefaces Philesius Ringmann's Grammatica Figurata, also printed at St. Dié.
${ }^{3}$ "Domini mei" the two Ludds are called by Waldseemuiller in his letter to Amerbach, dated the 5 th of April, 1507, published by C. Schmidt in his essay, Mathias Ringmann Philesius (Viemoires de la Soc. d'Archéologie Lorraine, $3^{e}$ serie, t. iii, Nancy, 1873, p. 227), and reproduced by Harrisse in The Discovery of North America, Paris, London, 1892, p. 44I.

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We know that Walter Ludd, the head of the Gymnasium Vosagense, had not only established, as previously mentioned, a printing office at St. Dié and was an author, but had also furnished the money for the publications produced by other members of the Gymnasium, and that in the present case he had moreover procured the necessary scientific material. ${ }^{1}$

As literary collaborators in the Cosmographice Introductio are to be mentioned Philesius Ringmann and Joh. Basinus Sendacurius. The former contributed two poems-a shorter dedicated to Emperor Maximilian I, and a longer intended for the reader. The latter furnished the Latin version of the four voyages of Amerigo Vespucci, and as a preface a decastich and a distich ad lectorem.

There can be no doubt, however, that Martinus Waldseemüller (Ilacomilus) must be recognized as the real publisher of the entire work; for not only did the treatise on cosmography originate from his pen, but the two maps going with the work were designed by him. Both parties, therefore, in a way had the right to pose as authors of the work. In view, however, of the fact that Martin Waldseemüller undertook the principal task, and that the work represents in all its scientifically significant parts

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his intellectual property, we consider it a point of honor to connect his name forever with the publication of the Cosmographice Introductio.

For this reason, also, we have chosen the reading of the edition of the 25 th of April, 1507, containing his name and which must typographically be regarded as the editio princeps, for reproduction in our facsimile edition.

Martin Waldseemüller ${ }^{1}$ was born between 1470-1475, probably at Radolfszell on Lake Constance. It is established by documentary evidence that his father had lived in Freiburg since 1480 , at least, and that in 1490 he became a citizen of that city. ${ }^{2}$ On December 7 th of the same year, Martin was matriculated in the University of Freiburg: "Martinus Waltzenmüller de Freiburgo, Constantiensis diocesis, septima decembris." ${ }^{3}$

It is clear that he studied theology, for later, in a memorial to Duke René of Lorraine, he calls himself "clerc du diocèse de Costance." He

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was therefore a clergyman in his native diocese of Constance. Subsequently, he became Canon at St. Dié, which position he occupied until his death, about 1 522. Probably Waldseemüller, as far back as 1505, was engaged at Strasburg, jointly with Philesius Ringmann, in the study of the geography and the maps of Ptolemy. ${ }^{\text {a }}$ It is likely that before 1507 he also spent some time in Basel and collated in its libraries manuscripts for the proposed edition of Ptolemy. While there he became a friend of the printer Amerbach. ${ }^{3}$ In 1507 we find both Waldseemüller and Ringmann in the printing establishment of Walter Ludd at St. Dié. There Waldseemüller displayed his many-sided activity. He was employed as a printer-in his letter to the Duke René, previously mentioned, he styles himself "imprimeur"-and together with other members of the Gymnasium Vosagense he prepared a new edition of Ptolemy. At the same time, he worked on various portions of the important work now engaging our attention.

We shall now proceed to examine more closely the several portions of the Waldseemüller publications of 1507 .

[^3]
## I

## THE OUTLINES OF COSMOGRAPHY

## Cosmographice Introductio

In the nine chapters of his Cosmographice Introductio, Waldseemüller treats the chief teachings of cosmography essentially according to traditional views.

In the introduction he discusses the principal theorems of geometry as far as they are needed for the understanding of geography; and he then proceeds minutely to define the globe, its circles, axes, zones, etc., its climata, its winds, its general divisions, the seas and islands, and the various distances on the surface of the globe.

Thrice in the text of the original (pp. 18, 25, and 30 of the facsimile edition), and on the inside of the double sheet whereon is the Figura universalis (facing p. 28 of facsimile edition), Waldseemüller makes mention of the new territories as described in Amerigo Vespucci's 2uatuor Navigationes, and which he calls the fourth continent-quarta orbis pars. Twice he proposes to christen this newly found part of the globe $A M E R I C A$ in honor of its supposed discoverer. By America, of course, he meant the South American continent of to-day.

## Outlines of Cosmography

The original words of the two passages above referred to run thus:

1. (p.25) "Quarta orbis pars (quam quia Americus invenit, Amerigen quasi Americi terram sive Americam nuncupare licet)."
2. (p. 30) "2uarta pars per Americum Vesputium (ut in sequentibus audietur) inventa est, quam non video, cur quis jure vetet, ab Americo inventore sagacis ingenii viro Amerigen quasi Americi terram sive Americam dicendam, cum et Europa et Asia a mulieribus sua soritta sint nomina."

Waldseemuller himself carried out this proposal in his publication of 1507 , when he inscribed on both maps belonging to the Cosmographice Introductio the word America as the name of the newly discovered continent. Both maps are stated to belong to the work not only on the title-page of the book, but also in several passages of the text; in fact, Waldseemüller declares outright that the outlines of geography, called "Cosmographice Introductio," was but an explanatory text for his large map of the world,-" Generale nostrum, pro cuius intelligentia hac scribimus." ${ }^{1}$

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## II

## STORY OF THE FOUR VOYAGES OF AMERICO VESPUCCI

## 2uatuor Americi Vespucii navigationes

On the title-page of the second section, which contains the account of the four voyages of Amerigo Vespucci, ${ }^{1}$ the translator states that he had done it into Latin from the French,"de vulgari Gallico in Latinum."

The dedication prefacing ${ }^{2}$ the actual account of the journey runs thus:
"Illustrissimo Renato Iherusalem et Sicilice regi, duci Lothoringice ac Barnensi, Americus Vesputius humilem reverentiam et debitam recommendationem."

According to this, Amerigo Vespucci must evidently have sent the story of his travels, written in French, to René, the titular King of Jerusalem and Duke of Lorraine.

Walter Ludd, too, declares in his work entitled, Speculi orbis declaratio, printed also in 1507 by Foh. Grieninger at Strasburg, that the account of the four voyages, written in French, had been sent from Portugal to Duke René. In the same

[^5]Four Voyages of Vespucci
work Ludd also informs us that it was he who urged its translation into Latin, and that he had entrusted Joh. Basinus with its execution: "Quarum etiam regionum descriptionem ex Portugallia ad te, Illustrissime rex Renate, gallico sermone missam Joannes Basinus Sendacurius insignis poeta, a me exoratus qua pollet elegantia latine interpretavit." ${ }^{1}$

Now it seems very strange that an Italian like Amerigo Vespucci should have sent an account of his voyages from Portugal to the Duke of Lorraine and in the French language. It may be conceded that Duke René may have received the account of Amerigo Vespucci from Portugal at the same time when he received the Portuguese sea-charts, a question we shall consider later. It is possible, also, that Vespucci wrote his report in French, for we know that in his youth he sojourned in France for some time as secretary of one of his relatives, who was the Florentine envoy at the court of Louis XI. ${ }^{2}$ But it is inconceivable that Amerigo Vespucci should have addressed his report to the Duke of Lorraine. With Duke René Vespucci

[^6]had no personal relations. When, however, in the dedication to the Four Voyages, we read that Vespucci reminds the addressee of the friendship which had existed between "them" in the days "they" were students together at the house of his uncle, G. Antonio Vespucci, ${ }^{1}$ in Florence, we can entertain no doubt that Vespucci did not send his account to Duke René. Moreover, we know that Vespucci was an intimate friend and fellow-student of his countryman, Pietro Soderini, subsequently Gonfaloniere, of Florence. ${ }^{2}$ The passage quoted from the dedication as well as the address used, "Vuostra Magnificentia," in the Italian edition of the Quatuor Navigationes is quite applicable to Soderini. These passages as well as others referring to Soderini were inadvertently reproduced in the Latin translation, while all other phrases relating to the recipient of the letter were so adapted as to fit Duke René of Lorraine.

It seems more than probable that Vespucci wrote the account of his four voyages to Soderini in Italian. As a matter of fact, there

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## Four Voyages of Vespucci

exists a very ancient printed edition of the work which, while undated, must belong to the sixteenth century, judging from its typography. ${ }^{\text {. }}$ This original Italian edition was then translated into French and thence into Latin by Basinus Sendacurius at St. Dié. Waldseemüller in the Cosmographica Introductio (p. 18) explicitly states: " Quatuor Navigationes ex Italico sermone in Gallicum et ex Gallico in latinum versa." It must be left undecided whether the French version was actually translated in Portugal as intimated by Walter Ludd, or whether it was made in Paris, a city with which Duke René, of course, was in constant communication. It is also doubtful whether the flattering substitution of the name of René as the intended recipient of the report was made while it was being translated into French or by Basinus Sendacurius. ${ }^{2}$
${ }^{1}$ In regard to the different editions of the Vespucci letters and the literature dealing therewith, read besides the works cited above, D'Avezac, Meaume, Gallois, and particularly Harrisse Bibliotheca Americana Vetustissima, p. 55 et seq., and Additions p. xxii et seq., F. A. de Varnhagen, Amerigo Vespucci, son caractère, ses ecrits (mèmes les moins authentiques), sa vie et ses navigations, Lima 1865, p. 9 et seq. and 27 et seq., and the introductions of the 2 facsimile-editions of the "Lettera" by B. Quaritch, London 1885 and 1893.
${ }^{2}$ The Latin text of Sendacurius was included by Simon Grynæus in his well-known collection of voyages, Novus orbis (Basel 1532, Paris 1532, Basel 1537 and 1555 ; German edition appeared 1534 . In more recent times M. F. Navarrete reprinted the entire Latin text in his Coleccion de los viages y descubrimientos, III, Madrid 1829 , p. 191 et seq.; F. A. de Varnhagen, Amerigo Vespucci p. 34 et seq.; G. Berchet Fonte Italiane per la storea della Scoperta del nuovo mondo, Rome 1893, et sq.; J. Boyd-Thacher, l.c., reproduces the report of the first voyage.

## Four Voyages of Vespucci

The 2uatuor Navigationes contained the most complete and substantial account of the transatlantic discoveries which had appeared up to that time. Vespucci, during those four expeditions, became acquainted with extensive tracts of the South American Continent, and, according to his own statement, during the third voyage he reached as far , south as the fiftysecond degree of latitude and there sighted an inhospitable coast.

In a separate account, dealing with the third voyage and published in numerous printed editions, he conceived the vast territories of the southern hemisphere to be one united continent and called it the "New World"-"mundus novus."

It is therefore not surprising that Waldseemüller got the impression that Amerigo Vespucci was the discoverer of the new continent, and conceived the idea of calling the new continent AMERICA in his honor.

## III

# WALDSEEMÜLLER'S LARGE WORLD MAP OF 1507 

## Plate I

The map of the world which belongs to the Cosmographice Introductio is called Universalis Cosmographice descriptio in plano on the title-page of the book. ${ }^{1}$ Until quite recently this map was thought to be lost. From reduced copies made ${ }^{2}$ by the Swiss cosmographer, Henricus Glareanus, which have but lately come to light, it was possible, however, to obtain a fair
${ }^{1}$ The two maps belonging to the Cosmograpbice Introductio are frequently referred to in the text as "Totius orbis typus tam in solido quam plano," also "Cosmographia tam solida quam plana," or by other terms. See pp. 3, 4, 20, 37, etc., of our facsimile.
${ }^{2}$ Of the two reductions of this map by Glareanus the one was found by Fr. v. Wieser in a copy of the Cosmographice Introductio belonging to the University Library at Munich, the other by A. Elter in a copy of the Ulm-Ptolemy of 1482 belonging to the University Library at Bonn. In this latter work it is explicitly stated, "Secutus Geographum Deodatensem seu potius Vosagensem." See Fr. v. Wieser, Magalhâes-Strasse und Austral-Continent; Innsbruck, 1881, pp. 12, 26; A. Elter, De Henrico Glareano geographo et antiquissma forma "America" commentatio; Festschrift der Bonner Universität, 1896, p. 7 et seq. See also E. Oberhummer, Zwei handschriftliche Karten des Glareanus in der Münchener-Universitätsbibliothek (Jahresbericht der Geogr.-Gesellischaft in München 1892, p. 67 sq.), Edw. Heawood, Glareanus, his Geography and Maps (in the Geographical Journal, London, 1905, p. 647 et seq.). C. F. Close, Glareanus (in the Royal Engineers Journal, 1905, p. 303).

## Waldseemüller's Large Map of 1507

 notion of its appearance. A copy of an original print of the map, which had so long been vainly searched for, was ultimately discovered in 1900 by Prof. Jos. Fischer, S.J., in the library of Castle Wolfegg in Würtemberg, belonging to the princely house of Waldburg.A facsimile edition of this map, which is of the utmost importance to the history of cartography and of the age of transmarine discovery, was published in 1903, together with an exhaustive commentary by Jos. Fischer and Fr. v. Wieser in both German and English.'

Although Waldseemüller in the Cosmographice Introductio remarks that his map is of larger dimensions than the globe; and though Glareanus in the Munich edition of his copy still more sharply emphasizes the great size of Waldseemüller's map, ${ }^{2}$ the newly found original print nevertheless caused a sensation on account of its impressive size, abundant contents, and the artistic merit of its adornment. The map consists of twelve sections engraved on wood,
${ }^{1}$ Die älteste Karte mit dem Namen Amerika aus dem Jahre 1507 und die Carta Marina aus deur Jahre 1516 des M. Waldseemüller (Ilacomilus). The oldest map bearing the name America of the year 1507 and the Carta Marina of the year 1516 by M. Waldseemüller (Ilacomilus). Edited with the assistance of the Imperial Academy of Sciences at Vienna by Prof. Jos. Fisccher, S.J., and Prof. Fr. R. v. Wieser, Innsbruck, Wagner's University Press, 1903. Sole agents for the British Empire and America, Henry Stevens, Son \& Stiles, 39 Great Russell Street, London.
${ }^{2}$ Etenim ipse auctor id in maximo spatio compinxit ita, $u t$ in codice hoc locum habere nequiret. See E. Oberhummer, l.c., p. 70.

## Waldseemüller's Large Map of 1507

and is arranged in three zones, each of which contains four sections. Each section measures to its edge $45.5 \times 62 \mathrm{~cm}$. ( $18 \times 241 / 2 \mathrm{in}$.). The map, covering thus a space of three square meters-about 36 square feet-represents the earth's form in a modified Ptolemaic coniform projection with curved meridians. On the lower edge, in capital letters, the title is thus inscribed: "UNIVERSALIS COSMOGRAPHIA SECUNDUM PTHOLOMEI TRADITIONEM ET AMERICI VESPUCII ALIORUMQUE LUSTRATIONES."

The name of the author of this work is nowhere stated nor the date or place of its publication. By circumstantial evidence, however, it can be proved without the shadow of a doubt that at last we have Waldseemüller's long-lost large map of the earth, belonging to the Cosmographice Introductio. Among these proofs are the following:
I. Its perfect agreement with the two copies of Glareanus, both in projection and in the outline of the several countries.
2. The conformity of the map to all the statements made regarding its details in the Cosmographice Introductio, such as:
a. The title, Universalis Cosmographia.
$b$. The designation of the several countries by means of the coats of arms of their re-

Waldseemüller's Large Map of 1507
spective rulers, exactly in accordance with the statements made on this point in the Cosmographice Introductio, the Imperial Eagle of the German Empire, the Papal Keys, the Crescent of the Sultan of Egypt, the Golden Cross with Branding Irons of the Sultan of Turkey, the Anchor of the Great Khan of Tartary, the Red Cross of Prester John, and the Royal Arms of Spain and Portugal in the newly discovered parts of the world.
$c$. The use of small crosses to indicate all places dangerous to navigation.
d. The name of "America," given to the newly discovered fourth continent.
$e$. The fact that the fourth continent is named and depicted as an island. ${ }^{1}$
$f$. The agreement of several legends of the chart with those indicated in the Cosmographice Introductio. ${ }^{\text {. }}$
3. The explicit reference to the map made by Waldseemüller himself in his Carta Marina of 1516 , which has the same number and size of sheets: Generalem igitur totius orbis typum,

[^8]
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quem ante annos paucos absolutum non sine grandi labore ex Ptolomei traditione, auctore profecto pra nimia vetustate vix nostris temporibus cognito, in lucem edideramus et in mille exemplaria exprimi curavimus. . . . Additis non paucis, qua per marcum civem venetum . . . . et Cristoforum Columbum et Americum Vesputium capitaneos Portugallenses lustrata fuere.

The antithesis of the Ptolemaic tradition and the new discoveries of the Spaniards and Portuguese is pictorially expressed on the Waldseemüller map of 1507 by the busts of Ptolemy and Amerigo Vespucci.

The principal basis of Waldseemüller's large mappemonde were no doubt the maps of Claudius Ptolemy, which Waldseemüller knew from the Ptolemy edition published at Ulm in 1486. The Tabula moderna of the same edition gave him additional aid in the representation of Italy, Spain, France, and the territories of the North. In designing Germany, he made good use of Ezlaub's map for travelers, ${ }^{1}$ published a short time previously. Another source of information were the travels of Marco Polo, which he utilized for his designs of northern and eastern Asia as well as of the southern and

[^9]eastern islands of Asia. In making his drawing of these territories, Waldseemuller also made use of a map on which all countries described by Marco Polo were represented just as on a map of the world by Martellus Germanus, or on the Globe of Martin Behaim. ${ }^{1}$ As for the representation of the interior of Africa, there was at Waldseemüller's disposal an interesting Special Map of Abyssinia, whose specifications, however, he wrongly localized by making the Blue Nile appear to discharge its waters into the White Nile from the left, and by shifting ${ }^{2}$ the territory about Lake Tana (Sahaf lacus) to South Africa.

For his designs of the lands just discovered by the Spaniards and Portuguese, Waldseemüller, according to his own statement, followed certain sea-charts, cartas marinas sequuti sumus. ${ }^{3}$ We can prove positively that Waldseemüller made use of two Portuguese sea-charts in preparing his large map of the world. One of them must have been of the same type as the Hamy map, formerly known as the "King map."
${ }^{1}$ See Fischer and v. Wieser, The Oldest Map with the Name America, p. 25 et seq.
"See "Map of the World by Fodocus Hondius 1611 ," ed. by E. L. Stevenson, Ph.D., and Jos. Fischer, S.J., New York, 1907, p. 15. Prof. Fischer will soon publish this map of Abyssinia, of which he has found three variants.
${ }^{3}$ See p. 37 of the facsimile.

* The Hamy map was first published by E. T. Hamy in the Bulletin de géographie historique, 1886, and subsequently in his work.


## Waldseemüller's Large Map of 1507

Waldseemüller's principal cartographic source of information, however, regarding the newly discovered territories was, as we have shown in our earlier work, the Canerio map. ${ }^{2}$ From Canerio Waldseemüller borrowed both the outlines and the legends for the representation of the coasts of the New World and South Africa.

The agreement of the two charts is so marked and extends to so many minor details of drawing in precisely the same places-as, for instance, the placing of the Padrâos, of the elephant in South Africa, of the armorial bearings, etc., in precisely the same positions-that it could not have been a map of the Canerio type which served Waldseemüller as the chief reference for his great work, but must have been Canerio's map itself, now preserved in the Naval Archives of Paris.

Waldseemüller's great map of the world produced a profound and lasting impression on cartography; it was a map of wholly new type and represented the earth with a grandeur never before attempted.

Ere many years had elapsed, many reduced copies of the work appeared; for instance, in I 510 the above-mentioned manuscript reproducEtudes hist. et géogr., Paris, 1896. See also Nordenskiöld, Periplus, plate xlv.
${ }^{1}$ Fischer and v. Wieser, The Oldest Map, p. 27 et seq.
${ }^{2}$ L. Gallois, Le Portulan de Nocolas de Canerio, in the Bulletin de la Société de géogr. de Lyon, 1890 ; G. Marcel, Reproductions de cartes et de globes, Paris, 1893 ; Harrisse, Discovery of North America, pl. xiv.

## Waldseemüller's Large Map of 1507

tions of Henricus Glareanus; another in 1520 in the Vienna Solinus edition; and still another in 1522 in the Basel edition of Pomponius Mela; these were the work of Petrus Apianus.

Even the small hemispherical maps next to the busts of Ptolemy and Amerigo Vespucci on the upper edge of the large map were repeatedly reproduced in the original size, as, for instance, by Joh. Stobnicza in his Introductio in Ptholomei Cosmographiam, printed in Krakow in 15 12, and in manuscript form by Glareanus and Sebastian Münster.

Waldseemüller's map of 1507 was still more widely spread by numerous adaptations, such as those of Joh. Schöner, Peter Apian, Joachim Vadian, Sebastian Münster, Gemma Frisius, Kaspar Vopelius, and Abraham Ortelius.

In the little mappemonde, Universalis Cosmographia, attached to the numerous editions of the Rudimenta Cosmographica by the Transylvanian humanist, Joh. Honterus, ' and which passed thence into other works, Waldseemüller's World Map continued to exist nearly unchanged for almost a century. ${ }^{\text {? }}$

[^10]
## IV

## WALDSEEMÜLLER'S GLOBE OF 1507

## Plate II

The reference made in the title of the Cosmographica Introductio to a "Universalis cosmographice descriptio tam in solido quam plano" has been variously interpreted by scholars studying Waldseemüller's works. On the one hand the view was taken that the expression referred to two maps, one of which, in solido, represented a small chart in the form of a planisphere; ${ }^{1}$ while on the other hand it was contended that the words "tam in solido quam plano" signified but one complete map, on which small hemispherical supplementary maps had been inscribed in addition to the large chart. ${ }^{2}$ This latter contention was apparently justified by the rediscovery of Waldseemüller's map of 1507 ; for here are actually two small supplementary maps above the large one, representing, respectively, the Eastern and Western Hemisphere. On closer examination, however, it is clear that these two hemispherical charts

[^11]can not be identified with the Universalis Cosmographice descriptio in solid.

It is expressly stated in the Cosmographice Introductio that the globe and the large map of the world differ in their indications of the degrees of latitude; for while on the globe the equator is marked in accordance with information derived from sea-charts and from accounts of the voyages of Vespucci, on the map it is drawn according to the system of Ptolemy. ${ }^{1}$ When, however, we compare the hemispherical charts with the main map, no difference can be perceived in their location of the equator relative to the countries of the world, a fact particularly noticeable on the western coast of Africa.

There exists, however, in the Hauslab-Liechtenstein Collection at Vienna, a printed representation of the terrestrial globe in strips, the only one hitherto found, ${ }^{2}$ which agrees with the statements published in the Cosmographice Introductio. The coast of Guinea on this globe approaches about ten degrees closer to the equator than on the large map of the world or on the

[^12]
## Waldseemüller's Globe of 1507

small charts representing the hemispheres. In Central America the Tropic of Cancer appears to the south of Hayti, while on the large map of the world its course is laid directly through the island of Isabella, or Cuba, as it is now called.

In the representation of America on the Hauslab-Liechtenstein globe the degrees of latitude correspond exactly with those found on contemporary Spanish and Portuguese maps such as those of Juan de la Cosa, of Bartholomeo Colombo, of the Hamy map, of the Cantino, and of the Canerio maps.

While the degrees of latitude of Africa do not exactly follow those of the Portuguese maps, Waldseemüller still being greatly influenced in these by Ptolemy, the Hauslab-Liechtenstein globe-strips correspond in every other particular with the details of the large map of 1507.

Attached to an edition of the Cosmographice Introductio published in Lyons there is a small printed chart representing the globe, which corresponds with the Hauslab-Liechtenstein copy not only in the drawing and the disposition of the various territories, but also in the degrees of latitude above mentioned.

From all these facts we may safely infer that in the Hauslab-Liechtenstein globe-strips we possess the long-sought-for Waldseemüller globe
of 1507 . It is the merit of F. A. de Varnhagen and L. Gallois to have been the first to establish ${ }^{1}$ this identity.

In 1509 there appeared in Strasburg a new edition of the Cosmographica Introductio put forth by John Grieninger, an extremely active printer and publisher, on which Waldseemüller's ${ }^{2}$ (Ilacomilus) name appears as that of the author. Grieninger, who was given to popularizing literature, at the same time published a German translation of the 2uatuor Navigationes, of which two editions appeared in close succession, one about Mid-Lent, the other at Lætare. ${ }^{3}$ As a supplement to this German translation, giving an account of the four voyages of Amerigo Vespucci, a small booklet was published by Grieninger, entitled Der welt kugel Beschrybung (Description of the Globe)."

[^13]
## Waldseemüller's Globe of 1507

A few months later, toward the end of Au gust, I509, another publication by Grieninger appeared, entitled Globus mundi declaratio, which is a Latin translation of Der welt kugel Beschrybung. In both these descriptions of the globe, reference is made not only to a small sphere belonging to the work but also to "unser grosse Mappa." ${ }^{1}$ Considering all that has been said we cannot resist the conjecture that by this small globe and this large "Mappa" are meant Waldseemüller's two charts and that they are new impressions from the original woodcuts of $1507 .{ }^{2}$

As regards the large map of the world this may be unhesitatingly admitted, for there is nothing whatever known of a later edition; and
treichs hie angezogt und vergleicht einer rotunden kuglen, die dan sunderlich gemacht hie zu gehörende, darin der Kauffman und ein ietlicher sehen und mercken mag, wie die menschen unden gegen uns wonen und wie die son umbgang, herin beschriben mit vil seltzamen dingen. Getruckt zu Strassburg. Von Gohanne Grüniger im yar M.D. IX uff ostern. Johanne Adelpho castigatore. Harrisse, Add., p. 43 et seq.
${ }^{1}$ Wie weit aber also sei von einem ort zu dem andern, daz ist mysslich in dieser kleinen Kuglen ze wuissen der grad halb so alhie nit mögen beschriben noch bezeichnet werdenn, sonder so du das begerest ze wuüssen, Mustu unser grosse Mappa anschauwen. "Der welt Kugel Beschrybung," Cap. xii.

In the Latin edition, Globus mundi declaratio, this paragraph reads as follows: 2uantum vero locus unus a reliquo distat, difficile cognitu est in hoc parvo globo propter gradus qui assignari omnes non possunt in eo. Si vero idipsum scire volueris mappam majorem considerabis cosmographia plana, in quacertius ac verius apprehendes secundum longum et latum extensos.
${ }^{2}$ This opinion was already ( 1900 ) set forth by L. Gallois, Bulletin, 1.c., p. 78 et seq.
on account of the great size of the map and the quantity of wood-blocks needed it is also quite improbable that such an edition was published. There are, however, a great many indications that in 1509 Grieninger published a new edition of the small globe in German in order to render this important aid to the study of recent discoveries accessible to the general public. ${ }^{1}$ The representation of the globe on the title-page of both the German and Latin editions seems to point to this. This vignette represents a hemisphere on which the various countries are distributed in exactly the same manner as on the large globe of 1507 , but with a German text. The small slice of the newly discovered Western Continent does not bear the inscription "America," but that of "nüw welt."

From this it must not, however, be inferred that the German globe did not also contain the word "America," as in the German description of the globe both expressions are used indifferently to designate the countries discovered by Vespucci.

To be sure, Waldseemüller did not use the word "America" in his later cartographical works, e.g., the large map of the world and the

[^14]
## Waldseemüller's Globe of 1507

Tabula terre nova of the Ptolemy edition published in Strasburg, 15 I 3, the map of the world in the Strasburg edition of the Margarita philosophica of 1515 , and the large Carta Marina of 1516.

Waldseemüller subsequently became convinced that Amerigo Vespucci should not be regarded as the true discoverer of the New World as he believed in 1507 . His attempt, however, to withdraw the word "America," a name he himself invented and used, proved a failure; for his works, published in 1507, had been rapidly spread far and wide in numberless prints, copies, and versions. As early as 1508 Waldseemüller wrote with just pride to his friend and co-worker, Philesius Ringmann, that his globe and world-map of 1507 were disseminated and known and highly commended throughout the whole world.' In accordance with the proposal made by Waldseemüller in 1507, the name America was, for the time being, restricted to the southern part of the New World. After the lapse of three decades, however, another German cartographer applied the name America to the northern portion of the Western Hemisphere. On Gerhard Mer-

[^15]
## W aldseemüller's Globe of 1507

cater's map of the world, published in $1538^{1}$ and drawn in the double heart-shaped projection of Stabius, the northern part of the New World, "America pars septentrionalis" is contrasted with its southern part, "America pars meridionalis."

Mercator, the great reformer of cartography, who knew the New World as a double continent, was the first to introduce into geographical literature the names North America and South America.


[^16]
# COSMOGRAPHTAE INTRODV, CTIO /CVM QVIBVS <br> DAM GEOME <br> triat <br> AC <br> ASTRONO <br> MIAE PRINCIPIIS AD EAM REM NECESSARUS: 

Infuper quatuor Americi Ves fpucij naugationes.

Vniuerfalis Cofmographię deferiptio tam in folido çplano/cis etiam infertis quę Ptholomęo ignota a nuperis reperta funt.

## DISTICHON.



Cum deus aftra regat/ \& terræe climata Cæfar Nec tellus nee cis fydera maius habent.
Eft Bpati Rtorami Sotaftatrmi.

$$
\widetilde{M D X}
$$

## MAXIMILIANO CAESARI AVGVSTO PHILESIVS VOGESIGENA.

Cum tuia fit valtum Maieftas §acra per orbem: Cæfar in extremis Maxmiliane plagis
Qua fol Eois rutilum caput extalit vndis/ Atç freta Herculeo nomine nota petit:
Quaç dies medius flagrantif fydere feruet/
Congelat \& Septem terga marina Trio:
Âciubeas regũ magnorum maxime prnceps
Mitia ad arbitrium iura fubire tuum
Hinc tibi deuota generale hoc mente dicauit
Qui mira prafens arte parauit opus.

- TEAOBA


## DIVO MAXIMILIANO CAESARIAV GVSTO MARTINVS ILACO MILVS FOELICITA TEM OPTAT.

Si multas adj̈ffe regiones $/ \&$ populorũ vltimos vidiffe/nô folū voluptariü fed etiam in vita côduci bile eft (quod in Platone / Apollonio Thyanæo atç̧ aly̆s mulcis philofophis/qui indagandarü reRz caufa remotiflimas oras petiucrũt /clarum euadit) quis oro inuictiffime Cafar Maximiliane / regio nüatơ vrbium fitus / \& externorum hominum
Quos videt condens radios fub vadas
Phoebus extremo veniens ab ortu:
Quos premunt Septem gelidi Triones:
Quos Nothus ficco violentus ętu
Torret ardentes recoquens harenas. Quis inquã illorü̃ omniür ritus ae mores ex libris cognofecere iu cundū ac vtile effe inficias ibit"'Sane (vt dicã quod miea fert opinio) (icut longiffine peregrinari lauda bile eft/ita de quuis cuiiple terrarü orbis vel ex fola charrarū traciitione cognitus eft/nõ abfurde repeti identidè potêt illud Odiffex caput quod doctiff Homes mus poetarũ Homerus de Vliffe fcripfit.
Dic inihi mufa virūu captx poft tempora Troix $Q$ ui mores hominũ multorum vidit $\&<$ vrbes. Hinc fačũ eft vt me libros Ptholomçi ad exẽplar Grecuĩ quorundä ope p virili recogniofcēte/\& qua tworAmericiV efpucin nauigationū luftragiôes àdĭ


## ANTELOQVIVM

prequiam quandã yfagogen ) p cõmuni ftudioforū vtilitate paraucrim. Quẽ tuęfacratiffim६ maieftais cū terrarü̆ dñs exiftas dicare ftatui. Ratus me voti cõpotẽ/ $/ \mathrm{ab}$ æmulorū machinamentis tuo $(\tan \widetilde{\widetilde{\beta}}$ Achillis )clipeo tutiffimũ fore/fi tuę Maieftatis acus tiffimo in eis rebus iudicio aliqua faltem ex parte me fatis foeciffe intellexero. Vale Cæfar inclytiff. Ex oppido diui Deodati. Anno poft natū Saluato rem fupra fefquimillefimú feptimo:

## TRACTANDORVM ORDO.

Cü Cofmographix noticia fine pręuia quadam aftronomię cognitione/et ip̃a ctiã aftronomia fine
 primo in hac fuccicta itroductiõe paucula de Geo metrie inchoamentis ad fphere materialis intellige
2 Deîde qd fphera/axis/ poli \&ē̄. (tià feruientibus.
3 De coeli circulis.
\& Quandā ipfius fpherç fecundũ graduü rôncs The
5 Dequinçß Zonis cęleftibus (oricã ponemus carundēớ \& 8 graduũ cocli ad terram applicatione

- DeParalellis.

7 Declimatibus orbis.
8 De ventis cũ eore et aliare renú figura vniucrâli Nono capite quędà de diuifione terrę / de finibus maris/de infulis/et locoř abinuicẽ diftãtia dicentut Addeï etiã quadrans Cofmographo vtilis.
Vltio loco ątuor Americi Ve fpucii fubrîge. ps fcčiões.Et Cofm, tã folidã ©̧̧ planã defrribemus.

## DE PRINCIPIIS GEOMETRIAE AD <br> SPHERAE NOTICIAM NE, <br> CESSARIIS CAPVT PRIMVM



## VIA IN SEQVENTIBVS

 circuli/circumferentię/centri/dias metricet id genus aliorum crebra mentio fiet: ideo primum nobis fingillatim de talibus breuifime tractandum venitEft igitur Circulus / figura plana vna quidem circumducta linea contenta:in cuius medio pun" čus eft/a quo omnes rectre linex ad circûdantem lineam eductæ adinuicem funt eqquales.

Figura plana/eft cuius mediü nō fubfultat/neç ab extremis egreditur.

Circûferencia/eft linea circulü continens ad quã omnes rectæ linę a centro circuli iectæ inter fefüt æquales/qux \& ambitus/ $\&$ circuitus/curuaturac ac circulus a latinis/grece autem peripheria dicitur.

Centrū̆ circuli/eft punctus ille a quo oñes recte ad lineã circulü continentẽ eductæ adinuicem funt equales.
Dimidius circulus/eft figura plana diametro cir culi $\&$ medietate circufferentix contenta.

- Diameter circuli/ eft quęcưq̧̧ linea recta percen A. in


## GEOMETRIAE

trü circuli tranfiens verinơ̧ ad circuli peripheriam ciecta.

Linea recta/eft a puncto ad punctũ extenfio bre uiffima.

Angulus/eft duarū lineare muruus côtaćtus. Eft eñ figuræ particula a lineę contactu in amplitudis nem lurge ns.

Angulus reĉus/eft angulus ex linca fupra lineã cadente/ \& vtrinḉ̨ altrinlecus duos adinuicẽ equa Pes angulos faciente caufatus:qué fir rectę lineę con tinent rectilineus:fi curuę/curu u, fpheralío̧ dicet: Obtufus ê qē recto maior. Acutus recto minor.
Solidü/eft corpus longitudine/ latitudine/altitu dineç dimenfum.
Alritudo/craflicies/profunditas idem. Inregrum eft res tota/aut rei pars que fexagenaria partitione non prouenit.
Minutum/eft fexagefima integri pars.
Secundum/Rexagelima pars minuti.
Tertiú fexagefima fecundi/\& ita deiuceps

## CAPVT SECVNDVM QVID SPHERA'

 axis poli \&<̌̈.fltrictiffime perdocet.Antea ${ }^{\text {and }}$ aliquis Cofmographix noticiã habcre poffit/neceffum eft vt fpheræ materialis cognitios nem habeat. Poftquod vniucrfi orbis defcriptionẽ primo a Ptholomęo at $\mathscr{E}_{\text {g }}$ aln̆s traditam/Zx deinde per alios amplificatä/nuper vero ab Americo Ves

## INCHOAMENTA

Iputio Iatius illuftratã facilius intelliget. Igií.
Sphera(vt eã Theodofius in libro de fpheris defi nit) éfolida \& corporea figura vna quidẽ côuexa Theo * fuperficiecôtenta/ in cuius medio pûstus ê/a quo dofius: omnes rectæ ad circûferentiä eduçę adinuicẽ funt equales. Etcü(vt neotericis placet) decem fint \{phe rec coeleftes fit materialis Sphera ad inftar octauę( $\bar{q}$ quod ftellifera fic aplanes dicitur)excirculis artifici cialiter adinuicem iunctis per virgulam $\&$ axē me dium centrum(quę terra eft ) tangẽtem côpofita.
Axís fpheræ/eft linea per centrư fpheræ trâfiens ex verraç parte fuas extremitates ad fpherx circü 6 ferentiā applicās:circa quam fphera /ficut rota cir/ ca axem carri( quiftipes teres eft) intorãtur \& cô uertitur/efto ipfius circuli diametrus. De q̣ Mani lius ita loquitur.
Acra per gelidum tenuis deducitur axis
( s . Sydereus medium circa quem voluitur orbis
Poli (qui \& cardines \& vertices dicuntur) funt puncła cooli axem terminantia/ita fixa ut nü $\tilde{O}_{\bar{B}}$ mo ueantur fed perpetuo eodê loco maneant. Et que hic de axe ac polis dicuntur ad octauă fpheram re ferēda funt. Quoniam in prçfentiarum materialis fpheræ determiationē/ $\hat{\text { (ut diximus) octauę fphe }}$ ræ fimilitudinem habet/(fufceppimus. Sunt itaq̧eos sü duo principales /vnus Septemtrionalis (qui \& Arcticus \&Borealis apcllatur/alter Auftralis/quê

## SPHERAE MATE:

Antarcticũ vocant /de hiis Vergilius ait:
Virgili. Hic vertex nobis femper fublimis /at illum Sub pedibus ftix atra videt manefß profundi.
Nos eñ in Europa \& Afia degētes polū Arctio عü p̀petuo videmus:q fic dicií ab Arcto vel Arctus ro maioreVrfa $q$ \& Califco \& Elice nomiaŭ \& Se ptêtrionalis a feptêftellis plauftri/ $\tilde{q}$ Triones voci
Baptif. tanti: \& füt minoris Vrfæ/quam etiam Cynofurā adpellant. Vinde Mantuanus Baptifta.
Carme. Tu nobis Elice nobis Cynofura/per altum Te duce vela damus. \&č. Item Borealis \& Aquilo nicus ab eius müdi parte vento. Nautæ fellam ma ris vocare afueuerunt. Huic oppofitus eft antareti cus/vñ \& nomé fortić. Nam anti gręca dictio latis ne cötra fignificat. Is \& Nothicus \& Auftronochi cus diciti: ate a nobis propter terre circulũ qui eft deuexus videri non poteft/fed ab antipodibus ( $\mathbf{9}$ s effe côpertũ ê cernití. Vbi \& obiter ãnotādū/quod Deuexū/rei fphericę tu morē \& ventrē fignificat. Cõuexü $y_{0} \mathrm{c}$ cius côtrariü eft/et cōcauitatē notat. Sunt precterea duo alĭ poli ipflus zodiaci/duos in coelo o circulos arcticil. . \& antarcticū defcribentes. Verū quia zodiaci \& arctici atọ antarctici ( qui in coelo füt circuli)mentioné foecimus:ideo capite fen quenti de circulis tractabimus.

## DE CIRCVLIS COELICAP. TERTIVM.

Duplices füt circuli q̣ \& fegmia ab auctoribus

## RVDIMENTA

dicunt in fpera \& coelo nö reuera quidem exiften" ses fed imaginabiles:maiores.. . 8 minores.
Maior circulus is eft/qui in côuexa fué ficie 「phe rę defrriptus ipfam in duo ęqua diuidit/ horũ funt fex.Aequator.f. Zodiacus/Colurus æquinoctios nü/Cohurus follticiorz/ Meridianus /\& Horizon.

Circulus minor in fphera é qui in cadé fpherę fuz perficie defrriptus fpheram minime in duo $\begin{gathered} \\ \text { qua di }\end{gathered}$ uidit: Tales funt quatuor. Areticus/ Cancri/ Capri corni/\& Antarf́ticus. Ita fummatim funt decc̃ de quibus debita ferie et primo quidem de maioribus dicemus.
Aequator(qui 8 primi mobilis cingulus/et eqqui noctialis diciť) eft circulus maior fpheram in duo æqualia diuidens/fecundum quamlibet fui partem ab vtroç̧ polo ęque diftans. Sie dictus quoniã fo: le ipfum tranfeunte ( $q$ uod bis in anno in principio arietis.f. mēfe Martio/\& pricipio hbrę menfe fepa rembri contingit) toto terrarü orbe xquinoctium \& dies noctirequalis eft.
Aequinoctiü Marcī /arietis/vernale:
Aequinoctium Septembris/libre/authumnale:
Zodiacus/eft circulus maior aquatorem in duo bus punctis (quę funt principia arictis $\&$ librre)diri mens/cuius vna medietatū ad feptemtrionē/altera vero ad Auftrum declinat.Ita diftus vel a zodion quod animal fignificat/quin duodecim animalia in

## SPHERAE MATE.

fe habet/vel a zoe quod eft vita:quia omniü inferi orữ vita fecundũ planetarũ motus fub ipfa effe dig

## Virgili.

 nofciê. Latini eũ figniferū vocant/q.xï. figna in fe ferat. Atŗß obliquü circulũ. Hinc \& Maro infit Ob liquus qua fe fignorũ verteret ordo.In media zodiaci latitudine circularis linea ipfum in duo «qqua partiés et vltro citroç fex latitu. gra. relinq̃ns itelligit: quã Eclipticã vocãt/co quod nüs F̧olis aut lunx deli quiu \& eclipfis contungat/nifi corum vterc̨̈ fub ea linea in eodem vel oppoftis gradibus decurrat.In eodem fi folare futuru fit deli quium.In oppofitis vero fi ipfius lunz. Et fol fem" per fub ea linea medius incedit/neḉß vitro deuiar. Luna aüt \& cateri planetarum nunc fub ca/ nunc citra vel vitra expaciati vagantur.
Duo funt in fphera coluri/qui folfticia \& şqui» noctia diftinguut.Ita a Colon grece quod mem" brum fignificat/ 82 vris bobus (quos magnitudine
Cxfar. Elephantü Cæfar cômentariord lib.iif.in Hercinia filua effe ait) dicti/qmin ficut cauda bouis membrū/ ereça femicirculü \& non complętū facit/ita nobis colurus femper imperfectus apparet. Vria em̃ me" dietas/videtur/cum alia fit occultata.
Colurus folfticiorū qui $\&$ declinationū dicitur eft circulus maior per principia cancri \& capricors ni/p polos eclipticę pariz \&épolos mundi trãfiens:

Aequinoctiorum colurus itidem circulus maior

## RUDIMENTA

eff per principia arietis ac libræ/ $\&$ müdi polos trä fiens.

Meridianus eft circulus maior per punctū veri $\$$ cis \& polos mundi tranfiens. Tales in generalibus noftris tam folido öplano decem gradibus abint" uicè diftinximus. Eft aũt pūctū verticis (quod \& zenith dicit ) in coelo pûctus directe rei fuppofitus.

Horizon(quem finitorẽ quǫ̈́ dicunt) eft fpher re circulus maior fuperius hemif herium (id eft di midiū (phere)ab inferiori diuidens. Eftcí is in quee fub diuo confiftentiū /circüducentiumo̧̧ oculos vi dez̃o obtutus deficere:qui et partem cocli vifam a nö vifa dirimere cernitur. Diuerfanü aũt regionũ varis us eft horizon: \& omniū horizontiü capitis ver, rex/ polus diciü. Nam tale punç̃ũ omniquaçă ab finitore atç̧ ipfo horizonte q̧que diftat. Et hace de circulis maioribus/nunc ad minores veniamus:
Circulus arcticus ê circulus minor quê polus zo彳 diaci ad motư primi mobilis circa polư mundi ars cticum defcribit.

Antarcticus/ eft circulus minor qué alter polus zodiaci circa polû mundi antarcticư caufat atợ de frribit. Nūcupamus aūt polū żodiaci( de quo etiā fuperiori capite diximis )punctũ vndecữ̧ ab ecliঞ prica eque diftantẽ. Sût ē̃ poli zodiaci axis edlip ticęextrêitates. Et ọtaẽ maxia folis dedinatióde ฐ̧ mox plura)tâta e poliz zod, a polo müdi diftãtia

## SPHERAE MATE.

Tropicus Cancri ef/circulus minor quem fol in principio cancri exiftẽs ad motū primi mobilis de Tcribit/qui \& folfticium ętiuũ dicitur.

Tropicus capricorni/eft circulus minor qué fol initiü capricorni tenens ad motü primi mobilis de Frribit.Hunc etiam circulü brumę dicimus.

Cęterum quia declinationis mentionẽ forcimus ideo annotandū.
Declinationé effe quando fol de eqquinoctiali ad Tropicü cancri fcandit/vel ad capricorni tropicuũ a nobis defcendit.

A fcenfioné pro côtrario accipimusiqñ.f. a tro pícis $\begin{aligned} & \text { quatori propinquat. Licet acyros } \& \text { impro }\end{aligned}$ prie a quibufdã dicatur afcendere quando nobis $p$ pinquat/\& defcendere cũ a nobis difcedit. Hacte\& nus de circulis/iam ad fphere Threoricam et latiorē quandã graduü quibus tales abinuicem diftent fpe culationem accedamus.

## CAPVT QVARTVM

De quadamfpherę Theorica feciundür graduū rationes.
Sphera celeftis quinç ligatur circulis principa lionibus vno maiore \& quatuor minoribus/Areti, cof.eancri/equatore/ capricorni / et antarctico. E qbus equator eft maior/alĭ quatuor minores. Hos ipfos vel potius quę interfunt fpacia authores Zo nas vocare afueuerunt, Hinc 8 K Vergilius in Gror

## [RVDIMENTA

gicis ait.
Quinớs tenent colữzonæ:quarir v̋ha corufeo Semper fole rubens / \& torrida femper ab igni eft Quam circū extremæ dextra læua¢ trahuntur Cerulea glacie concretæatogimbribus atris/ Has inter mediam $\mathbb{F}$ duæ mortalibus xgris Munere conceffę diuư:\& via fecta per ambas Obliquus qua fe lignorũ verteret ordo.

De quarü qualitate in fequentibus plura dicentr. Quia $\chi_{0}$ ofuperius tetigimus op polus Zodiaci|cir culir arcticū delcribat:ideo pro viteriori fpeculatio ne fciendü hoc de fuperiori Zodiaci polo ( qui in 66.gradu \& .9.miñ.elcuatiõis fitus c̄/at伊 a polo ar Efico.28.gradibus ac.52.mi.diftatSitelligi oportere:

Vbi $\& \times$ illud nonignorandū Gradum tricelimã figni partem effe. Er Signū̃ duodecimam circuli, Signü. At triginta duodecies miltiplicata.360.reddũt.

Quare liquidī cuadit quod gradus iterü tricente fima et fexagefima circuli pars effe definiri poffet. Circulumaüt.Antarcticum polus Zodiaci infe rior defcribit:qui in eodē gradı declinationis fitus eft et $\varepsilon q u e$ a polo antarctico diftat ficut fuperior ab arctico.

Tropicü cancri/eclipticæ reflexio / fue maxima folis ₹ fus feptemtrioné declinario (quę ab eqquino Etiali ad. 33: grad:\& . 51. miñ. (ita eft) defignat.
Tropicü capricorni alia Eclypticæreflexio/ fire

## SPHERAE MATE.

 tidem gradus ficut predicta fita eft) defrribit.

Diftantia inter tropicũ cancri \& circulü arcticū ef., ez, graduü \& $.18 . \mathrm{miñ}$. Totidem etiam graduü eft diftantia inter tropicũ capricorni \& circulum antarcticum.

Aequatorem media coli amplitudo a polis mū di $̨ q u$ uediftan's efficit.
Huc vfọ de quinçz zonis \& earum abínuicem dier ftantia.cöfequenter etiam frictim de reliquis queg dam trademus.

Circulü zodiaci eius ipfins poli oftendūt/a quis bus viç ad tropicos (id eft maximas folis declinar
 latimdo ab ecliptica $>$ §us vtrofóp. tropicos fex grad duum \& in vniuerfum. 12. grad.

Coluros declinationü \& afcenfionū figniant fols fticia \& eqquinoctia/hïq̧ fub polis|mundi fere per axem cocli ad angulos rectos. fpherales interfecât.
 ctiorum coluri vadentes côftituunt angulos oblís quos cū per folfticiorum zod. rectos caufent.
Circulum meridionalem(mobilem quidem) axis idemfubipfis polis continet.

Horizontis circulū/declarat zenith.Ipfum enim tança polus cius fuperior exiftēs vbiợab eo eqque diftat.Atç diuiditidem circulus horizontis/hemi

## RVDIMENTA

fpheriū noftrū̃ab altero per folis ortiu \& occafumb His vero qui fub æquinoctiali funt pervtro $\subset \mathfrak{\zeta}$ muй di polos. Et diftar femper zenith in omni horizôre ab ipfius circuferentia.90.gradibus qui funt quarta pars circuli. Eftos peri pheria horizontis quater di" ftantiam inter zenith \& horizonta fuperans.

Id demü ammaduerfione nō eft indignum axem müdi in materiali fphera diametraliter ab eiufdem polis per centrū mundi(qų̨ eft terra) tranfire.

Axis vero zodiaci in fphera nô apparer fed intel ligendus eft. $\delta$ hic axem mundi medium ad angus los impares fiue obliquos in centro interfecar.
Hoc modo in ipla mundi fabrica mirabilis ferics \& rerū ordo preccipuus effe videtur:cuius imaginē veteres aftronomi defrribentes factoris ipflius quã tum fieri potuit veftygiacqui omnia in numero pō dere \& menfura foecit) 反equuri funt. Nos quo ${ }^{\text {g e ea }}$ de re tractantes fpacīiniquitate fic exclufive ratio minutorin non vel vix poffit obferuari $/ \&$ Liobfers uaretur ctiam te̊dium cum errore gigneret/a plæ" nis graduum annotationibus circulorum pofitio" nem fumemus. Nam non multum diftat inter. 5 \% miñ.\& plenum gradum qui fexaginta minuta con tinet ficuti fupradiximus/atç in libro de fphera \& aliubi ab harum rerum fudiofis examufim deda satur.Itaçin figura quam pro talium intelligens tia hocloco fubiungemus ipfibini tropici cancri.f.

## SP HERAE MATE.

interceptū fpaciü/temporata atcō habitabilis. Ter" tia totư inter.d.e.f.g.medium fpaciü feruore male egreç habitabilis.Sol em illic fecundü lineã.f.e. ( $\tilde{q}$ nobis eclipticã defignat)affidua volubilitate gyros ducẽs fuo feruore eã reddit torridā at ©́ci inha bitatá Quarta eft totū inter.f.g.et.h.k. Spaciz: te mperatz atç̧ habitabilis/fi aquarū vaftitas $8 \%$ al tera coeli fa cies id impune finat. Quinta eft totum inter.h.k.i. interclufum fpaciü frigore femper horrens atō̧ ins Cum aūt dicimus aliquã colli zo" (habitata, nam vel habitatā vel inhabitatā/hãc denominatios nem a fimili zona terrx illi coelefti plaga fubiecta intelligi volumus: $\&$ q $\mathfrak{n}$ habitatã aut habitabilē $\mathrm{d} \tilde{j}$ cimus/bene \& facile habitabilem. Cũ vero inhabis tatam vel inhabitabile/egre difficileç habitabilem intelligimus. Sunt em qui exuftam torridamqz $\geq 0$ namnuichabitant multi.Vt qui Cherfonefum au" ream incolüt/vtTaprobanenfes/Aerhiopes/et ma xima pars terrę femper incognitæ nuper ab Ameri co Vefputio reperte. Qua de re ipfius quatuor fub fungentur nauigationes ex Italico fermone in Galo licum/8x ex Gallico in latinum verfo.

Itaç fciendūquod (vt $\& x$ fubfequês indicatfigu ra)prima zona q. polo arctico proxima eft. 23 .grae dus latitudinis 8X.51.miñ, habet.
Secưda que antarctica atǫ̧illi ipfi par ef/toridema Tertia temperata.s2.\&.18.miñ.

## RVDIMENTA

Quarta quę par eft/rotidem
Quinta yo torrida \& media gradus. 27. \& , , , en mi. Sed horū quendam rypum ponamus.

Polus A raticus


## SPHERAE MATE.

## CAPVT SEXTVM DE PARALELLIS

Paralelli(qui \& Almucantharat dicunt)funt cir culi vel lineeqquoquo verfus/atō ex omni parte æquediftantes $/ \&$ nun $\tilde{T}$ fip poffent etiam in infinis tum ptrahi cõcurrentes. Qualis eft in fphera ęqua tor'cum alïs quatuor circulis minoribus. Nõ quia quantū primus a fecundo/tantum fecundus a tert tho diftet :nam hoc Falfum eft/vt ex pręcedétibus li quet/fed qp quilibet duo circuli fimul inncti feciuns dữ quàliber fui ptẽ eque abinuicé fint diftätes. Nō enim eft eqquatorex vna parte altero tropicorũ ${ }_{\text {© }}^{\text {B }}$ ex alia vicinior aut diftantior/ cum omniquaç3 a tropicis ficut prediximus. 23. gradibus $8 \times .51$. mis nutis diftet.Simili modo de tropicis ad duos extre mos dicendum elt:quorum vterç ex omnibus fui
 flant.

Licet yo poffent paralelli ad libitum cuiuflibet diftantes defrribi nobis tamen pro faciliori fuppu tatione conuenientiflimum vifum eft (quodet ipfi
 mographixe generalis defcriptione ipfos tot gradi bus abinuicē fecerneremus/quot fequens formula oftendit. Cui etiã figura fubiungetur in qua paraie, los per terrã vtríq ad fopheram coeli protrahiomus.



## RVDIMENTA

## De dimatibus caput.vij.

Licet clima propriç regio interprectetur/ hoe tas men loco fpaciü terrę inter duas $\varepsilon q u e d i f t a n t e s ~ a p . ~$ pellatur/in quo porrectiffimę diei ab initio climatis v〔ণ̧̧ ad finem dimidiç horę variatio eft. Et quottữ aliquod clima ab equatore fuerit/tot femihoris Ion giffima eus loci dies fuperat diem nocti ęqualem. Suntç ipforum Septemgemina: ${ }^{\text {Fu}}$ uis ad auftrum nõ fit feptimum adhuc luftratum. Sed Boream ver fus Ptholomeus terram feptem femihorariu fpacio hofpitalem \& habitabilê inuenit:quę feptem clima ta ab infigni aut Vrbe/aut fluuio/aut môte fua no mina funt fortita.

Primü diciturDiaMeroes/a dia quod apud gre cos per fignificat/ 8 cafu patrio iungitit. Atöß a Me roe quęe Afriç ciuitas in torrida zona citra equa torē.ı6.gradibus fita/in quo paralello \& ipfe Nie lus effe inuenitur. Eius/ $\&$ fubfequẽtium etiā initiü medium \&\& finem atç̧ maximę diec in quolibet ipo zum horas generale noffrũ (pro cuius intelligentia hęc frribimus tibi liquido oftendet.

DiaSienes a Siene Aegipti vrbe/quodē puícię Thģbaidos principium

Dia Alexaudrias .Ab Alexandria infigni vrbé Africe Aegipti Metropoli: quam Alexander Ma gnus condiditede quo dietū eft a poetai. Vnus Pel leo iuveni non fufficit orbis.
a ij

## SPHERAE MAT.

Rho" dos ciuitatem habet/fortiter Thurcarū efferos bellicof Bimpetus fuftinentem/atđ̧̧ profigantem gencro fiffime.

DiaRhomes /ab vibe Europę notiffima/iter Ita 5 licas maxime clara/ 8 infignio olim gentiü domirtio ce/at $\dot{\beta}_{3}$ orbis capite/nūc patris patrù maximi fede.

- DiaBorifchenes /a magno Scytharū Huuio qui eft quartus ab Hiftro.
7 DiaRhipheon/a Ripheis montibus qui in Sars matica Europa infignes funt perpetua niue candẽ tes.

Ab his infignibus locis per quę ferme climatum linex medię tranfeunt feptem climata (quę $P$ tholo meus pofut) fua fortiuntur nomina.

Octauū Ptholomq̧us nö pofuit/cum illud terrę (quodcunç̉ eft) ipfincognitu a nuperioribus lu\& ftratū fit.\& dicitur Diatyles/quod ipfius principiư (qui eft Paralellus ab equatore. 21.) rectiflime per Tylen fit, ptenfus. Eft aut Tyle Septemtrionalis in Virgilis fula de qua Maro nofter/Tibi feruiet vltima Tyle: us.

Et hęc de climatibus ab ęquatore Septemtrionē * fus. Parí mô dicendū eft de eis quę fut vltra ęqui noctialê ad Auftrum/quonũ fex contraria nomina habentia funt luftrata et dici poffunt antidiaMero es/ antidia Alexandrias / AntidiaRhodon Antidia

## RVDIMENTA

Rhomes / antidiaBorifchenes: a greca p̄ticula ants $\bar{q}$ oppofirüvel côtra denotat.Atç in fexto climate Antarcticū̃ verfus/\& pars exurema Africe nuper reperta \&/Zamzibar/Iaua minor/\& Seula inful $\varepsilon$ \& quarta orbis pars (quam quia Americus inuewit Amerigen/quafi Americiterrä / fiue Americã nun Amerì cupare licet) fitzofunt.De quibus Auftralibns cli, ge matibus hęc Pomponï Melleq Geographi verba in telligêda funt /vbi ait. Zonę habitabiles paria agũt Pôpo: anni tempora/verün nō pariter. Antichthones altes Mella ram/nos alteram incolimus.llius fitus ob ardorẽ in tercedentis plage incognitus hhuius dicendus eft. Vbi animaduertendum eft quod climatũ quod ${ }^{\circ}$ s
 naturę \& alia atç alia fyderü virtute moderentur. Vnde Virgilius.
Nec vero terrę ferre omnes omnia poffunt Hic Regetes/illic veniunt forlicius vue
Arborei foetus alibi/atç iniuffa virefcunt Gramia. Nônte vides croceos vt Thmolus odores India mittit ebur?mittưt fua thura Sabg̨i At Calybes nudi ferrū:virofaç pontus Cofterea. Eliadũ palmas Ep iros equarū \& \& "̈. OCTAVVM CAPVT DE VENTIS.
Quoniã in fuperıoribus ventorū aliquando ins cidenter memores fuimns (cüuf. polü Boreū/ polū̃ Nothicü/atçid gemis alia diximus) \& ipforū̃ ce\%
a 17

## SPHERAE MAT.

ģnitio nổnhihil mométi imo magnã vtilitatể ad Cof mographiả habere dignofriit:ideo hoc fubfequenti «apire quędã de ventis (qui $\&$ fpiritus \& flatus di, cunť) trademus. Eft igitur'ventus(vt a Philofophis definitur) exhalatio calida \& ficca lateraliter circa terram mota \& $<\bar{c}$.

Quia vero fol fecundú binos tropicos / 88 ip̃m ę̣̃torē triplicē ortū atçß occafū/ę̂tiualē.f. ६̨quinor étialē/ac hyemalē fervat:et meridei fimiliterć" ip̄ius feptētrionis verinē̃ fint latera/quark quęlibet pro" priū ventū habêt:iō fumatim. xì. Cunt vèti/ tres ori entis/tres occidentis/totidē meridei/\& medie nos ctis totidê:ex qubus äruor qui ifeãnti formula me diū locŭ tenebür prícipaliores füt /alị minus prîci. Oriens. Ocridens.

| Collar. | Trop.Canc. | Kíkiăa | \|Chorus |
| :---: | :---: | :---: | :---: |
| Medij. | Aequator. | \|Subfolãus. | $\begin{aligned} & \text { Fauoni.g } \\ & \text { let Zephi. } \end{aligned}$ |
| Collat. | Trop.Lap. | Eurus qui \& Vulturn. | Atricus $q$ er Lybs |


| Collat. | Meridies | Media nox |
| :---: | :---: | :---: |
|  | \|Euronorhus | Septêtrio. |
| Medn | Aufter/qui\& Nothus | Aquilo qui \& Boreas. |
| Collat | \|Lybonothus | $\begin{aligned} & \text { Trachias } 9 \\ & \& \text { Circius } \end{aligned}$ |

## ,RVDIMENTA

Poetętñ mius pricipales ( $q$ et collảales dicürt) \$P principalioribus ex licentia(vt fuus fibi mos eft) vfurpare cõfueuerunt. Hinc \& Ouidius ait
Eurus ad Aurorã Nabath çaç̧ regna receffit
Perlidaç \& radīs iuga fubdita matutinis.
Véper \& Occiduo quę littora fole tepefcunt
Proxima \&üt Zephiro:Scychiam/Reptę̄̆ Triones Horrifer iuualit Boreas/contraria tellus
Nubibus affiduis/pluviogs madefcit ab Auftro
Eft autē Subfolani aura faluberrima/quąa fole purior \&\& fubtilior alŋ̧̆s efficitur.

Zephirus Caloris et humoris temperiem habẽs montiū pruinas refoluit. Vō ēillud Vergilף Liquis tur et putris Zephiro fe glęba refoluit.
Auftri flatus crebro tempeftatū/,pcellanũ/at himbriu p̧agus é:Quare \& Nazo infit. Madidis Nothus euolat alis.
Aquilo fuo rigore aquas ligat/atque conftringir Vir. Et glacialis hyems Aquilōibus afperat vndas Virgib
His de ventis Gallinariü noftrür multę doctrinę Gallina virū fequêtes quatuor edere verficulos memini، rius. Eu rus et Eoo flat. Subfolanus ab ortu. Flatibus occafum Zephirufok Fauonius implent. Aufter in extremis Lybiæ et Nothus çtuat oris. Sudificus Boreas Aquiloç minatur ab axe.
Et licet vēti feptentrionales fint natura frigidi/ nihilo tamen minus quando torridam zonam per aiuiry

## COSMOGRAPHIAE

tranfeunt/mitigantur:ficut \& de Auftro romidam Zonam anteaç 2 d nos veniat tranfeunte/côpertü゙ eft. Quod fequentibus verfibus infinuatur.
Quoq̧ loco prodit gelidus furit Aufter/ \& arctis Cogit aquas vinclis/at dum per torrida flatu Sydera tranfierit/noftras captandus in oras Cōmeat: \& Borę̨ fuiflima tela re:orquet
At contra Boreas nobis grauis/orbe fub ime Fit ratione pari moderatis leuior alis.
Cxtera mox varios qua curfus flomina mittunt Imutant propriç naturam fedis eundo.
Hucufg de ventis dictür fufficiat. Ponamus nũe harz omniü figurãvniuerââe:in qua fint poli/axes / circuli cū maiores tum eriam minores/oriens/occi/, dens/quinçß zonæ/gradus lögitudinis/latitudinis * tam ipffus terrę $\overline{3}$ cocli/paralelli/dimata/venti \&xc̈.

## CAPVTIIX.DE QVIBVSDAM COS, MOGRAPHIAE RVDIMENTIS.

Omnê terrę ambitūad coli fpacium punctio obui nere rationem Aftronomicis demonftrationibus conftat. Ita vt fi ad coeleftis globi magnitudinê cṍs feraï/ nihil fpacij prorfus habere iudiceü. Et huius quidem tam exiguç in mundo regionis quarta fere portio eft quę tholomęo cognita a nobis animan tibus icoliti. Atçj in tris partes hactenus โciffa fuit. Europan/Africam/\& Alian.

## RVDIMENTA

Europa ab occidẽte mari Athlantico/a feptē.Bri tãnico/ab oriêtéT hanai/Meotide palude/et põto: a meridie mari mediterraneo claudiz/ /habetở in fe Hifpaniam/Galliam/Germaniä/Rhçtiam/Italiam/ Gręciam/ \& Sarmatiam. Sic dicta a filia regis Agee noris cius noministquę dum virginibus Tirijs con mitata in marino littore puellari ftudio luderet \& caniftra floribus fiparet/ab loue in thaure niueum verfo rapta illius tergo infediffe/\& per \&quora põ tiin Crętam delata terrec contra iacenti nomen des diffe creditur.
Africa ab occidente mari Athlantico/a meridie oceano Aethiopico/a Septemtrione mari mediter raneo/ \& ab ortu Nilh flumine terminatur. Ea in fe côplectitur Mauritanias Tingitanam \& Cafarien fem/Libiam interiorem/Numidiam(quã \& Mapa liam dicunt)minorem Africam( in qua eft Charta* go Rhomani imperij olim pertinax amula )Cyre* neicã/Marmaricam /Lybiam (quo ctiã nomine to ta Africa a Libe rege Maurithãię appellat̃ ) Aethio piam interiorē/Aegiptü $\&<\bar{c}$. Et dicit Africa quod frigo ris rigiditate careat.

Afia(quę cateras magnitudine \& opibus lögifs fime vincit)ab Europa Thanai fuuio/atçab Afri ca lfchmos qui in Auftralem plagá dífentus Aras bię \& Aegpti finum perfindit) lecermič. Hęc prin cipaliffimas regiones habet Bithiniam/Galatiam.

## COSMOGRPHIAE

Capadociam/Pamphiliam/Lidiam/Ciliciä/Arme nias maiorē \& minorē. Colchiden/Hircaniam/Hi beriam/Albaniä̀:et prçterea mPtas quas fingilatim enumerare longa mora effer. Ita difta ab eius nomi nis regina.
Nuc \$o \& heqpartes funt latius luftrate/ \& alia quarta pars per Americū̃ Vefputiü(vt in fequentl bus audietur )inuenta eft/quā non video cur quis iure veter ab Americo inuentore (agacis ingenị vi Ameris so Amerigen quafi Americi terrã / fiue Americam ca dicendã:cū̀ \& Europa \& Afia a mulieribus fua for tita fint nomina. Eius fitūu \& gentis mores ex bis bi nis Americi nauigationibus quæ fequunc̆ liquide intelligi datur.

Huncin modü terra iam quadripartita cogno: fcï: et funt tres primẹ partes cõtinentes/quarta eft infula: cuiu omni quaç̧ mari circūdata confpiciât. Et licet mare vnüfit quēadmodū̃et ipfa tellus/multis tamen finibus diftinctum / \& innumeris replętum nus, infulis varia fibi noīa affumit:quę et in Cofmogra phix tabulis côfpiciunt̃ $/ \&$ PriCcianus in tralatione Dioniff talibus enumerat verlibus. Circuit Oceani gurges tamen vndiç valtus Qui ${ }^{\$}$ uis vnus fit plurima nomina fumit. Finibus Hefperijs Atchlanticus ille vocatur At Boręqua gens furit Armiafpa fub armis Dicitille piger necnô Satur.idē Morruus eft alṭ̆só

## RVDIMENTA

Vnde tamen primo confendit lumine, Titan Eoum̨̄ vocant atç Indum nomine pontum Sed qua deuexus calidū polus excipit Auftrum: Acthio pumç limul pelagus Rubrüg vocatur Circuit oceanus fic totū maximus orbem Nominibus varïs celebratus. Perfecat Hefperiã primus qui porgit vndis Pamphilcüç latus Lybię prętendit ab oris Sic minor eft reliquis/maior quem Ca/pia tellus Sufcipit intrantē vaftis Aquilonis ab vndis Nomine Saturni quod Thetis poffidet $\S q u o r$ Cafpius ifte finus fimul Hircanufés vocatur Atduo qui veniunt Auftralis ab $\varepsilon q u o r e ~ p o n t i ~$ Hic fupra currens mare Perficus efficit alrum Eregione fitus/qua Calpia voluitur vnda

Fluctuat aft alter Panchęa çg littora pulfat Euxeni contra pelagus protentus in Auftro Ordine principiü capiens Athlantis ab vnda Herculeo celebrant quam mgtte munere|Gades. Ccliferafís tenet ftans Athlas monte columnas Eft primus vaftis qui pontus Hibericus vndis Diuidir Europen Lybia cőmunis vtriç Hinc atog hinc ffatuę funt: ambę littora cernunt Hecc Lybies hęc Europes aduerfa tuendo. Gallicus hune gurges:qui Celtica littora pulfat

Mare Eoums Indicūs Acthio рісиmá

Pâphís licum:

## Hircas

Perficū

Achlan ticum Hercus seum.

Gallicu Fxcipit:hunc lequitur Ligurū cognomine dictus Qua domini rerum terris creuere Latinis. Ad petram leucen Aquilonis ab axe reductus

## COSMOGRAPHIAE

Quęfreta Sicanį concludit littore curuo Infula fed Cyrnos proprifis pulfatur ab vndis,

## Mare

 Intra fardonium pelagus Celtumçgrefufis Inde falis tumidus Tyrrheni voluitur $̨$ fuus Ad partes vergens auftrales/excipitiftumSiculir Sicanie gurges folis deflexus adortus:
Qui procul effufus Pachynis tendituroris
Ad Cręten fummã( quę prominet equore)rupem:
Qua Gortyna potẽs medĭs qua Phętos in aruis
Arietis hanc rupem fimilantem vertice frontem
Pro merito graĭ Criu dixere metopon.
Hoc mare Gargani concludit lapygis ora:
Ädria; Illinc incipiens extenditur Adria vaftus:
ticum., Ad Boream penetrans pelago folemণ̧G cadentē
Ioniü. Ionius pariter finus hic perhibetur ab orbel
Diuidit \& geminas diuerfis partibus oras:
Quas tamen extremas côiungit terminus vnus
Uliricü. Ad dextran parté protenditur Lllyris alma:
Poft hanc Dalmatię populorû̀ martia tellus Ad lęuam Aufonięporrectus continet Ifthmos Quẽ tria circundant maria vndiç littore curuo Tyrrhenum/Siculum/necnon fimul Adria vaftus Finibus at proprïs exceptant fingula ventos Tyırhenum Zephyro:Siculum fed tundiẗ Auftro.
Adria fuccurrens Eoo frangitur Euro.
At poft Sicaniam tractu diffundituralto
Syxtis Ad Syrtim pelagus/Lybicis quęcingitur orist:

## RUDIMENTA

Maiorem poftquam minor excipiręquoralonge Atç̧ finu gemino reforantia littora pulfant
Finibus a Siculis Cretçum tenditur ęquor
Ad folis veniens ortus Salmonida pofcens Dicitur Eous qui Crçtę terminus effe:
Pof hanceft geminü marevaf̂ū fuctubus atris
lucabus Hifmarici Borę quod tunditur atris.
Poft hanceft geminu marevafṻ fuctubus at Quod ruit aducrfus celfę de partibus ArÉi Quod prius eft Phaniu perhibêt : hoclittora tãgit Phaniu Pręcipitis cafu montis:poft vinda fecunda Sidoniù ff pelagus:penetrat qua gurgite pontus. Ificus Arctoas ad partes eqquore vergens. Non longe rectus: Cilicum nam frangitur oris. Hinc Zephiros pofeens veluti draco flectit vndis Quod iuga montiuagus vaftat:filua © qu fatigat $^{2}$ Partibus extremis Pamphilia clauditur ifo: Ar®ß Chelidonig̨ rupes cinguntur eodem
At procul hunc zephyrus finit Patarcide fumma: Poot hçe Arctoas ad partes alpice rurfus. Ągeum/fupcrat qui fuctubus çuora cameta: Difperfas vafto qui gurgite Cycladas ambir Terminat húcimbros pariter Tenedofón cocrcês Angufta trahiü qua fauce Propontidis vnda Afia:quam fupra populis diftenditur a mplis Ad Notiani partem:qua latus ducitur If hmos: Threicius fequitur pof Bofphorus oftia ponti: Hoc nullum perhibent terras anguft tus orbis
bolpho Mus.

## COSMOGRAPHIAE

Simple Effe fretum dirimens:hic funt Symplegades aretg gades Panditur hic ponti pelagus Titanis ad ortus Quod petit obliquo Boream folemç meatu Hinc atç hinc medio percurrunt $\varepsilon q$ quore colles: Vnus qui veniens Afię de parte Carambis Dicitur auftrali:fed contra finibus alter Prominet Europę hunc criu dixere metopon: Ergo conueniunt aduerfi gurgite tanto Diftantes quantū ternis tranfire diebus Eualeat nauis:bimarem fic eqquore pontum Afpicias fimilem cornu quod flectitur arcus
Neruo curuati diftento dextera neruum Affimilat:recto trahitur nam linea ductu Extra qquam Boream quo fcandit fola Carambis Sed formam cornu geminatis flexibus edit Littus:quod pontum cingit füb parte finiftra Meotis In quam Meotis penetrans Aquilionis ad axes Quam Scythieg gentes circundant vidiç ripis Et matrem ponti perhibent Meotidis vndam. Scilicet hic ponti vis exit gurgite multo
Thaus Cimmeriü torrens per Bofphoron hic vbi Thaurū rus Cimmerín gelidis habitant fub finibus imum. Hece maris eft fpecies filendens hęc forma pfundf. Eft aûtvt prędiximus mare plegnum infulis equí bus maximę \& principaliores iuxta Ptholomęum heqfunt
Taprobana in mari Indico fub $\varepsilon q$ quatore

## RVDIMENTA

## Albion quę \& Britannia \& Anglia

Sardinia in mari mediterraneo
Candia quę \& Creta in linu Aegeo Selandia
Sicilia in mari mediterranco
Corfyca
Ciprus

## Extra Ptholomecum

Madagafcar in mari Prafodo
Zamzibar
Iaua in Oceano Indico orientali
Angama
Peuza In oreano Indico
Seula
Zipangri in Oceano oceidentali
Hęfunt ingentes quas cingit Tethyos vnda Infulẹ:adhuc alię diuerfis partibus orbis.
Diuerfé plures fama latuere minores
Auris difficiles nautis vel portubus apte
Quarũ non facile eft mihi promere nomina verfu:
Cęterū vt vnius loci ab altero diffantiam cogno fcere poffis poli eleuatio tibi cûprimis côfideranda venit. Annotandũ igit paueis quod (vt ex fuperiori bus liquet ) viuentibus fub paralello ęquinoĉiali vterç̣ polus in horizonte eff.Eunti aut $\overline{\text { ç ad }}$ feptê trionem eo magis fubleuaï polus quanto plus alis quis ab sqquatore difcefferit. Quep poli elcuatio res

## COSMOGRAPHIAE

## Prola

 quium gionü \& locorũab ६qquatore diffantiã demöftrat: Eft ein tantus locitractu's ab cquatore cuius mé" furä fcire defideras /quára è eleuatio poli ad zenith ciuldē. Ex quibus milliariü numerus facilis cogni tu euadit/dü eundé $p$ numerū eleuatiōis poli mului plicaueris. Verü tī nō func fecūdū Ptholomçi feus tentiã milliaria a circulo eqno fialiad Arfon vbi \& gẽtiū $̧$ quales. Nā a primo eqquatoris gradu vfc| ad duodecimü/qlibet graduũ lexaginta Italica mul liaria côtinet quę faciut. 15 Germanica. Cōmuniter eiñ quatuor Italica pro vno Germamico reputaní. Eta.iz.gradu vfqß ad. 25.quiliber. 59 millaria facic quę funt Germanis.is, 萦. d. Atç ve res fiac apertior ponemus formulam fequenterm.Gradus Gradus. Millialtal. Mil.Ger


## RVDIMENTA

Etita quoç ab çquinoctialis yfus polos tumans tarcticum $\overline{\text { ®ै a arcticum graduü latitidinis côtinens }}$ ria variatur. Quod fif fire volueris quot $a b$ vno loco ad alium milliaria fint/perpende diligenter in quibus gradibus latitudinis fint talialoca \& quot gradus medient/deinde vide in formula fuperiori quot milliaria talis gradus habeat \& multiplica nu merū milliariū per numerū mediorū graduū/atç milliariü numerus refultabic quę cū ltalica fuerint diuidas per quatuor/ \& Germanica habebls. Hęc, p inductione ad Cofmographiã dicta fufliciãt fite modo ämonuerimus prius/nus in depingendis Note tabulis typi generalis nõ omnimodo fequutos effe Ptholomęu/pręerrim circa nouzs terras vbi in car tis marinis aliter animaduertimus eqquatorem côfti tui ${ }^{\text {öß }}$ Ptholomqus fęcerit. Et pinde nó debēt nos ftatims culpare qui illud ippm notaverint. Confulto em foccimus quod hic Ptholomeū/alibicartas mas rinas fequuti fumus. Cü \& ipfe Ptholomęus quins to capite primilibri.Non omnes continentis pars tes ob fuę magnitudinis exceffum ad ipfius perue: niffe noticiam dicat/et aliquas quemadmodumfe habeantob peregrinantium negligentiam fibi mis nus diligenter traditas/alias effe quas aliter atç ali ter fe habere côtingat ob corruptiones 8 mutatio nes in quibus, pparte corruiffe cognitę funt. Fuit igiü neceffe(quod ipfe fibietiã faciundū ait)ad no:

## APPENDIX

uas temporis noftri/tradiciones magis intendere: Etita quidem temporauimus rem /vt in plano cirs canouas terras \& alia quẹpiam Ptholomęü: in $\mathfrak{f o}$ lido vero quod plano additur defrriptionē Ameri cifubfequentem fectati fuerimus.

## APPENDIX

Anneftamus adhuc fuperioribus antea© ${ }^{\text {B }}$ reces ptui canamus elcuationis poli atcs ipfius zenith ac centri horizontis \& climatū quadrantê velut parer gon \& quoddà corolariū. Quamuis firecte cons fiderauerimus is quadrans de quo dicemus non fit ad has res impertinés. Colimographū ein vel maxi me poli lupra caput eleuationê/zenith $\%$ terrę di mata cognofcere oportet. Formač itaç idem quá drans hoc pacto. Diuide quẽcunós circulū in par tes quatuor/ita quod duę diametri le in centro ad angulos rectos inter fecent:quarũ vṇą que altera fui parte pinnulas habet)axem polorü múdi $/ \& \mathrm{al}$ a terá £quatorem lignificabit. Deinde eã partẽ circulí quę eft inter femiaxem pinnulas habentem $\&<$ alte ram femidiametrum in partes.xc.diuidas/atç op pofitả in totidem/ figậ̧̧ perpendiculū ad cê truın \& paratus erif quadrans. Cuius hiceft vfus. Verte eũ ita vtép pinnulare foramina polū directe videas \& ad quod clima atçß in queŝ gradü perpendiculū ceciderit/es ipo climate et eleuatıo nus gradu tua re gio/quinetiä zenith at $\check{\text { ģ horizontis centrū exiftite }}$


Hactenus exequuti capita propofita/hic ipfas lon ginquas expaciationes fequẽter introducamus Ve fputī/ /fing gulorum factorum exitum circa inftitutu tradentes.

Finis introductionis
b in

## Philfius Vogefigena Lectori

Nilus:
Lacus
Lacus Eifaciunt Lunę magna fluenta lacus
Lung. Adextris mõtes futt lus/Danchis/quoog Mafcha lllorum Aethiopes inferiora tenent
Dãchis Aphrica confurgit quibus e regionibus aura Afflans cum Libico feruida regna Notho. Aethio Ex alia populo Vulturnus parte calenti.
Aphris Subiacet hic eqquo no ©tis Taprobana circo cus. Baffaç Prafodo cernituripfa 「alo Libo: Aethiopes extra terra eft Baffamç marinā nothus - Non nota e tabulis o Ptholomęe tuis. Vultur Cornigeri Zenith tropici cui cernitur hirci nus. Atroß comes multę funditor ipfus aquę.

Rura papirifero qua florent pinguia Syro

Mafc. Aphriclanscur I
Acthio pes.

Dextrorfum immenfo tellus iacet equore cincta
Tellus/quam recolit nuda caterua virum Hane quere clara fuum iactat Lufitania regem Inuenit miffa per vada claffe maris. Sed quid plura:fitū/gentis moreโob repertę Americi parua mole libellus habet. Etlegenonnalum Rhinocerontis habens

\author{

- TEAOO
}


# QVATVOR AMERICI VE: SPVIU NAVIGATIONES 

Eius qui lublequentê tur sarum defcriptios nẽ de vulgari Gallico in Latinu träftu lit.<br>Decaftichon ad lectorem:



- TEAOU,
(17)


## Ilyuftrifinto Renato Iherufalem <br> \& Sicilię regi/duci Lotho ringį̨ ac Barñ. Amer ricus Vefputius hu" milẽ reuerentiã \& debitã recômẽ dationem.

Fieri pôt illuftrifime Rex vt tua maieftas mea ifta temeritate ducatur in admirationê: propterea quod hafce litteras tam prolixas adte fcribere non rubuerear/ cum tamen fciam te continuo in ardus is confilifis \& crebris reipubliç negocīs occupatif fimum. Atđ̧̧ exiftimabor forte non modo pręum ptuofus/Red etiam ociofus:id mihi muneris vendis cans/vt res ftatui tuo minus cõuenientes non dea lectabili fed barbaro pprfus ftilo (veluti amufus ab humanitatis cultu alienus)ad Fernandū Caftilięre gem nominatim frriptas/ad te quo Zg mittam. Sed $^{2}$ ea quã in tuas ỳtutes habeo côfidentia/\& côperta fequentiũ rerū neça ab antiquis neç̧ neotericis fcri ptarum veritas me corã.t.M.fortaffis excufabunt: Mouit me imprimis ad frribendum pręfentiū lator Beneuenutus.M.t.humilis farnulus / \& amicus me us nõ pœnitendus/qui dum me Lifbonę reperiret precatus eft vt.t.M.rerü per me quatuor profectis onibus in diuerfis plagis mundí vifarum/participē facere vellem. Peregi em bis binas nauigationes ad nouas terras inueniendas:quanũ duas ex mandato Fernandi inclyti regis Caftilię per magnư occani
finum occidentě y̌fus focci/alteras duas iuffu Mas nuelis Lufitanic̨ regis ad Auftū.Itaç̧ me ad id ne gocij accinxi fperás q. .t.M. me de clientulorx nu mero nô excludet: vbi recordabiựơ olī mutuā ha buerimus inter nos amiciciä tēpore iuuentutis n $\bar{f} \xi$ «ü grămatiç̧ rudimêta imbibentes fub pbata vita \& doctrina vencrabil'\& religiofi fratris de. S.Mar co Fra. Georgī Anthonij Vefputij auunculi mei pariter militaremus. Cuius aunnculi veftigia vtis nam fequi potuiffem/alius profecto vt $\&$ ipfe Pe trarcha ait) effem ${ }^{\text {Wh}}$ fum. Vtcüç tñ fit/nõ me pus det effe quifun. Semper em in ipfa $\grave{y}$ tute $\&$ rebus Itudiof fis fummã habui delectationē. Quod fi tibi hę narrationes omnino non placuerint:dicam ficut Plinius ad Męcenatê fribit Olim facetīs meis de leçari folebas. Er licet. M. .f. Fine fine ir reipublice ne gocñs occupata fit/nihilominus tantũ téporis qqũe q̧ fuffuraberis/vt has res $\ddot{\text { ®̈nuis ridiculas (quę tamẽ }}$ fua nouitate iuuabüt) pellegere poffis. Habebis eñ
 negociorū nô modicā deleçationē/ficut et iple foe niculus prius fumptis efculentis odorê dare \& me liorē digeftionẽ facere afueuit. Enim vero fi plus $£ \AA$ plíxus fuero/veniã peto. Vale.
Inclytifime rex fciar.t.M. Muod ad has ipfas rea giones mercādi caufa primú venerim .Dum@̣ per ఫ̆drennị reuolutionē ícis rebus negociofus effem b iiij

## ANTELOQVIVM

 vide rem quo pacto caduca \& tranfitoria bona ho minem ad tempus in rotę fum̃o tenerẽt $/ \mathcal{K}$ deinide. ipfum precipitarent ad imü qui fe poffidere multa dicere poterat:conftitui mecü varijs taliürerum ca fibus exanclatis iftiufmodinegocia dimite? /et mes orū laborum finem in res laudabiliores ac plus fta biles ponere.Ita difpofui me ad varias mundi pars tes côtemplandas $/ \&$ diuerfas res mirabiles viden das. Ad quã rem fe \& têpus \& locus oportune ob tulit.Ipfeem Caftilię rex Fernandus tunc quatuos parabat naues ad terras nouas occidentem verfus difcooperiendas/cuius celfitudo me ad talia inueftii ganda in ipfam focietatê elegit. Et foluimus vigefís ma die Maĩ. Mcccc. xcvij.de portu Caliciæ iterno ftrü per magnū oceani finū capientestin qua pro" fectione, xviififconfumauimus menfes/multas inue nicntes textas firmas $/ \&$ infulas pene innumerabis lesvtplurimũ habitatas/quarūù maiores noftri men tionem nullam foecerunt. Vnde \& ipfos antiquos taliū non habuiffe noticià crediunus. Er nifi memo" ria me fallat memini me in aliquo legere/quod ma re vacuum et fine hominibus effe tenucrint. Cuius, opinionis ipfe Dantes Poeta nofter fuit/vbiduo deuigefimo capite de inferis loquens Vliffis mory tẽ côfingit:Quę autê mirabilia viderim/in fequena tium proceffu. T.M.Mintelliget.

## PRINCIPIVM

TERRARVM INSVLARVMQVE VA: riarum Defcriptio :quarum veftutinō meminerũt autores Nuper ab anno incarnati domini. M. cece xevri.bis geminis nauigationibus in mari difcurfis/ inuentaru:duabus videlicet in mari occidentali per dominü Fernandum Caftlię/reliquisvero duabus in Auftrali ponto per dominũ Manuelê Portugal lię ferenifimos reges/ Americo Vefpucio vno ex Naucleris nauiumq̧ pręfectis prçcipuo/ fubfequē tem ad pręfatum dominū Fernandum Caftillię re" gem/de huiufmodi terris 8 c infulis edente narratio nem.
 NNO DOMINI.M. CCCC. xcvī.xx.menfis Main diè/nos cum iiì.conferuantiç nauibus Calicium excuntes portum/ad infulas(ólim fortunatas inũe vero magnam Ca nariam dictas) in fine occidentis ha bitati pofitas in tertio climate:fup quo/ extra ho rizontem earum/ $\mathfrak{f}, x \times v$ ij.gradibus cū duobus ter tijs/feptentrionalis eleuat polus/diftârefós ab hac ciuitate Lifbona in qua côfcriptum extitit hoc prę fens opufculum. cc.lxxx.leucis:vento inter meris diem \& Lebeccium ventum firante/curfu primo pertigimus. Vbi(nobis de lignis/aqua/cęterifqa ne ceffarịs prouidendo ) côfumptis octo fere diebus nos (factain primis ad deun oratione) eleuatis dew

## NAMGATIO

hine ventotraditis velis/nauigationem noftrå per Ponentè incipiêtes :lumpta vna Lebeccī quarta: talinauigio tranfeurrimus vt.xxvin. vix elapfis die bus terrę cuidà applicaremus:quả firmã fore exifti mauimus. Diftatç Canariç magnę ab infulis. M. (vel circiter) leucis:extra id quod in zona torrida habitarū eft. Quod ex eo nobis conftitit: $\wp$ Septë trionalẽ polū extra huiufcemodi telluris horizontē xvi.gradibus fe eleuare/magif $\subset$ ß occidentalé. 1 xxv . $\overline{\mathcal{G}}_{\bar{S}}$ magnę Canariç ifulas gradibus exiftere côfpexi mus: put inftrumẽta oía möftrabãt. Quoîlococia ctis de prora ãchoris claffẽ noftrà/leuca a littore cūs media diftantẽ/reftare coegimus:nonnullis folutis phafelis armis \& gẽte ftipatis/cū quibus ipm vfণ̛ß ad littus attigimus. Quo $\tilde{\text { ¢̈pprimux }}$ puenimus: gentē nudam fecundú littus euncem innumeram percẹpi mus. Vnde nõ paruo affectif fuimus gaudio. Omes em̃ qui nudi incedere confpiciebant::videbant quo of propter nos fuipefactiv vehementer effe. Ex eo
 nos effe intuiti funt. Hij poftō̄ nos adueniffe co" gnouerunt/omnes in propinquū montè quendam aufugerūt: quo tunc nec nutibus nee fignis pacis et amucicięvllis/vt ad nos accederc̃t allici porueřt.Ir ruente vero interea nocte/nos claffem noltrà male tuto in loco (vbi nulla marinas aduerfus procellas tuta relidentia foret) cöfidere timentes:cöuenimus

## PRIMA

pna/vt hine(mane facto)difedercmus.exquirere mufës portũ quempiam/vbinoftras fatione in tu ta collocaremus naues. Qua deliberatiõe arreptal nos vento fecundũ collê (pirantitraditis velis/poft ©(vifu terram ipfam fequendo/atös ipfo plage in littore/gentes cötinue percipiendo)duos integros nauigauimus dies:locum nauibus fatis aprum com perimus. In quo media tantūleuca diftantes ab ari da/conftitimus:vidimufog tunc inibi innumerabis lem gentiü turbam/quam nos cominus infpicete) $\&$ alloqui defiderantes:ipfamet die littori cū cyme bis \& nauiculis noftris appropiauimus:necnon \& tunc in terram exiuimus/ordine pulchro.xl.circiter viri huiufcemodi gente fe tamen a nobis \& côfors tio noftro penitus alienam prębēte.Ita vt nullis eả modis ad collo quiü cômunicationemue noftrã alli cere valuerimus: pręter ex illis paucos/ ${ }_{9}$ s multos poft labores ob hoc fufceptos/tandem attraximus ad nos dando eis nolas/fpecula/ certos criftallinos aliàs, fimilia leuia/ quitum fecuri de nobis effecti/ conciliatum nobifcum/necnon de pace $\& 2$ amicis cia tractatum vencrunt. Subeunte autem interim nocte/nos ab illis nofmet expedientes (relictis eis) noftras regreffifumus ad naués. Poftea vero fubs fequentis fummo diluculo diei/infinitam in littore virorum \& mulierum pariulos fios fecumt ve" ctantiun gentem nurfum confipeximus cognoul

## NAVIGATIO

muif deferre totam /qualem infra fuo locum diceŭ. Quo
 met in £quor proÿcientes(cum maximi natatores exiftent) quantus eft baliftç iactus nobis venerunt natantes obuiam/fufç̧perũtę̨ nos humaniter:atç ea fecuritate $\&$ confidentia feip fos inter nos coma mifcuerunt ac fi nobifcü diutius antea cöueniffent \& pariter frequentius practicauiffent : pro qua re runc per parum oblectati fuimus. De quorum mo" ribus(quales eos habere vidimus )hic/quando qus dem fe cömoditas offert/interdum eciam interferí mus.

Demoribus ac corum viuendi modis.

## VANTVM AD VITAM/EORVM

$q$ \$pmores omnes:tam mares $\bar{\beta}$ feeminę nu dipenitus incedunt tectis non aliter ves rendis $\overline{\text { ¢ }}$ cum ex vtero pdierunt. Hĭ mediocris ex iftentes ftature multum bene proporcionati funt quorũ caro ad rufediné(veluti lconū pili ) \& git:qui fi veltimétis operti mearēt albi(credo)tã $\bar{\beta}$ nos exs tarẽt Nullos habēt in corpe pilos puterē crines q̊is

## PRIMA

peçros nigrefcētcfor gerunt:'\& prĉ̣erim focmines quę propterea füt tali longo nigrợ crine decor \& Vultu non multú fpeciofitiunt qm latas facies ears tarns adfimilatas habét/nullos fibi finunt in fupcr" cilts oculorumue palpebris ac corpore totos crinis bus demptis )excrefcerc villos/ob id quod habitos in corpore pilos quid beftiale brusale © res retant. Omnes tam viri $\bar{\phi}$ mulieres fiue meando fiue curg rendo leues admodum atç veloces exiftüt:qiñot frequenter experti fuimus lin $\mathrm{f}_{\mathfrak{q}}$ etiam mulieres vnà aur duas pcurrere leucas nuhiliputãt/ \& inhoc nos shrifticolas multū pręcellunt. Mirabiliter ac vitra雷 Lit credibile natant:multo quo ç melius formine $\widetilde{\text { B }}$ mafculi quod frequenti experimento didicimus cum ipfas etià fueminas omui prorfus fuftentamis
 fpeximus. Arma corum arcus funt \& fagitte/quas multü fubriliter fabricare norunt. Ferro metallifor alijs carent:fed pro ferro beftiarum pifciumue den tibus fuas fagittas armant/quas ctiam(v) fortiores exiffant) vna quog (epe pręurunt. Sagittsrij funí certiffimi.Itave quicquid voluerint iaculls fuis feri ant:nonnullif(p; in locis mulieres quoc; optime far gittarrices extant. Alia ctiam arma habēt velutilan ceas præacutafue fudes 'necnũ ©̌ clauas cap ita mi nifice laborata habentes. Pugnare potiffimù affue si funt aduerfus fuos alienigene lingue confines co

## NAMGATIO

tra quos nullis parcendocnifi ivt eos ad acriota tory menta re(eruent)multuin crudeliter dimicãt. Etcir in prçium properant fuas fecum vxores(non bels ligeraturas/fed corum poft eos neceffaria perlatus ras) ducūt/ob id q'(ola ex eis mulier tergo fibi plus imponere poffit /\& deinde.xxx.xxl.veleucis fubue here(prout ipfif ¢̧pe $^{2}$ vidimus) $\overline{\text { ch }}$ vir(etiam validus) 2 terra leuare queat. Nulla belli capita nullofue pre fectos habent/quinymmorcũ eorum quilibet ex fe dominus extet) nullo feruato ordine meant. Nulla regnandi dominiüue fuum extendendi aut alterius inordinatę cupiditatis gratia pugnant fed veterem folum ob inimiciciam inillis ab antiquo infitam: cut iulquidem inimiciciç caufam interrogati nullă aliă indicant nifi vt fuorum mortes vendicent antecefs forum. Hęc gens fua in libertateviuens nulliç̉̉̉ obe diens nec regem nee dominũ habet. Ad pręliû autẽ fe potiffimum animant $\&$ accingunt cum eorũ ho ftes ex eis quempiam aut captiuum detinent aut in teremerunt. Tūc em eiufdem captiui interemptiue confanguineus fenior quilöß exurgens exit cito in plateas 8 vicos paffim clamitans inuitanfog omes \& fuadens vt cum eo in pręlium confanguinei fui necem vindicaturi properent:qui omnes côpaffio ne moti mox ad pugnam fe accingunt at ${ }^{\circ}$ B repens te in fuos inimicos irruunt. Nulla iura/nullamue iu fticiam feruant :malefactoress fuos nequaquam pus

## PRIMA

niunt/qumymmo nec parentes ipfi paruulos fuoss edocent aut cortipiunt. Mirabiliter cos inter fefe conqueftionari nonnun ${ }^{\boldsymbol{\sigma}}$, vidimus. Simplices in 10 quela fe of tentant, verum callidi multum atç $\ddagger$ aftus tif funt.Perraro /8\& fummiffa voce loquürur / eifdẽ quibus vtimur accentibus vtentes. Suas vtpluria mum voces inter dentes \& labra formantes:alins vtuntur vocabulis ${ }^{C}$ E nos. Horū plurimę funt $y$ dio matū varietates quoniã a centenario leucarum in centenariü diuerfitatem linguarum fe mutuo nulla. tenus intelligentiü reperimus. Cômeffandi modữ valde barbarum retinent:nec quidem notatis man ducant horis/ fed fiue nocte fiue die quotiens eden di libido fuadet. Solo manducantes accumbunt/\& nulla mantilia nullaue gaufapa(cư lineamentis pan nif(g alīs careant) habent. Epulas fuas atç̧ cibaria in valcuła terrea quę ipfimet côfingunt/aut in me" dias cucurbitarum teftas ponune. In retiaculis quis bufdam magnis ex bombice factis \& in aere fufpē fis dormitant :qui modus © $\bar{q}$ uis infolitus $\&$ afperia or fortaffis videri queat /ego nihilominus talé dor mitandi modum fuauem plurimum iudico. Etenim cum in eifdem eorü retiaculis mihi plerumç dors mitaffe contigerit/in illis mihimetipfi melius $\widetilde{\sigma}$ in tapetibus quas habebamus effe perfenfi. Corpore valde müdi füt et expoliti/ex co qqferipos freg̣ntiff

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melauant. Et cum egefum irecquod falua dixerim reuerentia)coacti funt/omni conamine nituntivt a nemine perfpici poffint:qui quidem in hoc quanto honeffifunt tanto in dimittenda vrina $f e$ in muns
 cum fiquidem illos nobifcum loquentes $\&$ coram pofitos fuam impudiciffime vrinan 〔ępius emins xifie perfpexcrimus. Nullälegè/nullülegitimũ tho ri focdus if fuis connubijs obferuät/quinymmo quot quot mulieres quifç côcupifit/tot habere \& dein de illas quandocūç volet(abfq̧ hoc q̧ id pro iniu ria aut opprobrio habeant)re pudiare poteft. Et in hac re vtiç tam viri " mulieres eadé libertate frus untur. $Z$ cclofi parü/hibidinofi vero plurimũ̃ extãt: magifo formine 荧 mafculi:quarum artificia vt infa tiabili fuę fatiffaciant libidini hic honeftatis gratia fubticenda cenfuimus. Ę ip $f(\varepsilon$ in generandis paruu lis foccundę admodū funt : nec̀r dü grauidę effecte funt penas aut labores euitaut.Leuiflimo minio dolore pariunt.Ita vt in craftínum alacres fanatę vbiç̧ ambulent:prg̨ertimợ poft partū in flumen quodpiam fefe ablutũ vadunt/tumç̧ fanç mundă teç inde(veluti pifcis) apparent. Crudelitati aut aè odio maligno adco dedite füt/ve fillas fui forfitan exacerbauerint viri/ fubito certū quoddă efficiunt maleficiū:ciĭ q̊ p̃ ingẽti ira, pprios fęus i pprịs svte ris necìt abortiürtọ deinde:cuius rei occaliöe ifiniti

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porum paruulipeteant. Venuflo \& elegantippor tione côpacto corpore funt lta ve in illis quitquä deforme nullo infpici modo poffit Et quãuis difr, nude ambulent inter famina tamen earum/ pudiz bunda fic honefte repofta funt vt nullatenus vide riqueant pręterquam reguuncula illa anterior quã verccundiore vocabulo pectufculum ymũ vocaa mus quod 8 in illis vtiç non aliter $\widetilde{C}$ honefte ná tura ipfa videndum relıquit Sed \& hoc nec quide én curant qũ̃ vt paucis expediam nõ magis in fuorữ vifione pudendorū mouent $\overrightarrow{T B}$ nos in oris noftru/ aut vultus oftententatiôe. Admirandà pervalde rem ducerent mulierẽ in eis mamimillas pulpas ve laxas aut ventrem rugatư ob nimiü partü habentë cum omnes equx integre ac folide poft partü fems per appareant ac fi nū $\stackrel{\text { c̈p }}{ }$ peperiffent. Hee quideın fe noftri cupientiffimas effe monftrabant. Nemis neminhac gente legem aliquam obferuare vidi= mus nec quidem iudẹi aut mauri nuncupari folis de qneuut cuin ipfis gentillbus aut paganis muls to deteriores fint Etenim nô perfenfimus oq facrifi cia vlla faciant aut $\underline{\text { p loca orationifue domos alis }}$ quas habeant.horum vità (quę omuino voluptu? of eft) Epy cuream exiftimo illorum habitationes fingulis ipfis funt communes/ Ipleç illorum do mus campanarum inftar côftructe funt firmiter ex magnis arboribus folidate palmarū folījs defuper

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contecte $8 \&$ aduerfus ventos $\&$ tempeftates tutill me nônullifở in locis tam magne vtin illarū vnica fexcentas effe perfonas inuenerimus . Inter quas octo populofifimas effe côperimus fic vt in eis efs fent habitarentç pariter animarī̆ deceẽ milia. Octẻ nio quolibet aut feptemnio fuas fedes habitatione ue tranfferūt/qui eius rei caulaminterrogati natus rale refponfun dederūt dicentes $q$ phebi veheme tis eftus occalionę hoc facerẽt ob id ppexillorzlon giore in eodem loco relidentia aer infectus corrus prufog redderetur quę res in eorū corporibus var! as caufaret ęgrṭudines quęquidē eorū̃ ratio nổ mn Ie fumpta nobis vifa eft Eorum diuitię füt variore colorữ auium plumq aut in modū lapillorum illorez quos vulgariter pater nofer vocitamus laminie fi, ue calculi quos ex piccium offibus lapillis ve viridi bus aut candidis faciunt \& hos ornatus gratia fibi ad genas labia vel aures fufpendunt. Alia quo 解 fi $^{2}$ milia futilia \& leuia pro diuitĭs habẽt quę nos oiñi no parui pendebamus. Cõmuratiōibus aut mera monïs in vendendo aut emendo nullis vtunc̃ qui bus fatis eft quod natura foonte fua propinat Au rum vniones iocalia cęteraçg limilia quę in hac Eus ropa pro diuitïs habemus nihil extimant imo pes nitus fpernunt nec habere eurant.In dando fiena* turaliter iberalifimi funt vt nihil qnod ab eis exa petatur abnegent, Et quemadmodumin dando lis

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berales funt fic in peterido \& accipiendo cupidiffi mi poft $\frac{\pi}{G}$ le cuiquam amicos exhibuerint. Maxis mum potifimumq ${ }_{3}$ amicicię fue fignum in hoc per hibent optam vxores $\bar{\oplus}$ flias proprias amicis fuis pro libito habendas offerunt in qua re parens vter ${ }_{9}$ felonge honorawi iti exiftimat cum natã eius \&C fi virginem ad concubitū fuum quifpiam dignatur \& abducit \& in hoc fuam inter fe amiciam potiffis mum côciliant. Varns in eore deceffu multiģ mo dis exequøŋs vtuhtur. Porro fuos nônulli defuctos in humo cum aqua fepeliut \& inhumant illis ad ca put victualia ponentes quibus cos poffe vefci \& alimentari putant nullum deinde ppter eos alium planctum aut alias cerimonias efficientes. Alrì qui bufdam in locis barbariffimo atç inhumanifimo fepeliendi vtuntur modo.Quippe cũ corum quếs piam mortis momento proximum autumant illuu eius propinquiores in filuam ingentem quamdam deferunt vbi eū in bombicesis retiaculis illis in quiq bus dormitant impofitum \& recubantê ad duas arbores in aera fufpendunt ac poftmodum ductis circa eü fic fufpenfumvna tota die chorcis irruente iterim nocte ei aquã victū̧̆ aliū ex q̊qquatuor aut circir dies viuere q̃at ad caput apponut $\&$ deinde fic inibi folo pendēte relicto ad fuas habitatiôes re deût quibus ita pactis fiifdẽ egrotus poftea mädu cet \& brbat ac inde ad côualefcentiam fanitatemq̧
c ij

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redeat \& ad habitationê ppriam remeet illiz eius affines ac propinqui/сü maximis fufcipiüt cerimo nïs At perpanci fuut qui tă grande prętereant pe riculü cü eos ibidem nemo poftea vifitet quifi tüe inibi forfan decedūt nullà aliam habent poftea fea pulturā. Alios quoç̧ complures barbaros habent ritus quos euitande , plixitatis hic omitsimus grae
 \& ęgritudinibus vtunt̃ quę fic a noftris difcrepant \& difcoùueniunt vt miraremur haud panū qualiter inde quis euadere poffet Nempe vt frequenti didi cimus experientia cũ eorũ quempiã febricitare cô" tigerit hora qua febris eum afperius inquietat ipm in frigentiffimã aquá immergüt $\&$ balneant poft。 madurnç per duas horas circa ignem validǘdo nec plurimum calefcat)currere \& recurrere cogũt \& poftremo ad dormiendum deferunt quoquis dem medicamento côplures conũ fanitati reftituf vidimus. Dietis etiă(qubbus tibus quatuor ve die bus abfac cibo \& potu perfiftunt)freqnentiffimis
 in brachịs (falua ala) fed in lumbis $8 x$ tibiarū pulo pis.Seiplos etiam ad vomitū cū certis herbis quas in ore deferunt medicaminis gratia plenüơ prouo cant \& multis alịs remedị̆s antidotifç vtunt̆ que longum dinumerare foret Multo fanguine multo: ¢̧flegmatico humore habundant cibariorüfuonū

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occafiôe quex radicibus/fructibus/herbis/varìf pifabus faciunt. Omni farris granorüq̧aliorum fe mine carent Cõmunis vero corum paftus fiue vis Ctus arborea radix quedam eft quã in farrinaa fatis bonã côminuunt $\&$ hanc radicem quidam corum iucha alì chambi alĭ vero ygnami vocitant. Alijs carnibus/prcter ${ }^{\text {® }}$ ho minü per raro vefcunt̃ in quis bufquidem hominü carnibus vorandis fic in huma ni funt 8 inmanfueti vt in hoc omné feralem ome nem ve beftialẽ modü fuperent. omnes em̃ hoftes fuos quos aut perimunt aut captos detincit tam vi ros $\mathbb{B} \mathcal{F}$ faminas indiftincte cum ea feritate deglutis unt $v t$ nihil ferum/nihil ve brutū magis dici vel in fpici queat quơquidẽ fic eferos imanelọ fore / va rijs in locis mihi frequentius contigit a fpexiffe mis rantibus illis $q$ inimicos noftros fic quo qु $^{\text {nequa }}$ quam manducaremus. Et hoc pro certo majeftas veftra regia teneat Eors côfuetudines(quas pluris mas habent) fic barbare funt. vt hic nunc fufficiens ter fatis enarrari nô valeãt. Et qqū in meis hifce bis geminis nauigatōıbus/tam varia diuerfaçß ac tam a noftris rebus 8 modis differc̄tia perfpexi ldciry co libelliu quêpiam (quế quattuor dietas flue quas tuor nauigationes appello) cô frribere paraui cons fripfiç in quo maiorem rerī a me vilanū parté dis ftincte fatis /iuxta ingenioli mei tenuitaté /collegi. Vexutamennon adhuc publicauita hillo vero quã

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omia particulariter magis ac fingillatim tangenore idcirco vniuerfalia hicfolümodo plequens adinac uigationem noftrã priorem perficiendã a qua pau tifper digreflus fueram iam redeo. IINHOC NAVIGU NOSTRIPRIMOR dio notabill cômoditatis res /nõ vidimufidcirco(vt opî nor) q̣ eorẻ linguã nô capiebamus pręteṛ̣̆冖 nỗnul là auri denotantiä/quod nõnulla indicia in tellure il la effe monftrabant. Heccine yo tellus quo ad fuí Iitü pofitionẽç tam bona eft vt vix melior queat. Cṍcordauimus aũt vt illã derelinquễtes Iögius na uigationê pduceremus. Qua vnanimitate fufcep ta/no dehinc aridà ipam collateraliter femg fectã zes necnõ gyros mPros fcalafở plures circüeuntes
 Ferentiä habentes /tandẽ certos poft aliquot dies portui cuidả applicuimus/in quo nos grandi a peri culo alritono finitui côplacuit eripere. Huius eñ modi portü ©̧̧primū introgreffi fuimus populatio nẽ vnã̃ eore hoc eft pagũ aut villã fuper aquas(vt Venetię)pofitã côperimus/in qua ingễtes.xx.edes aut circiter erãt in modũ campanarũ vt prętactum eft effecteat ${ }^{\circ}$ f fupp ligneis vallis folidis $\&$ fortibus firmiter fundatę/prę quarū porticibus leuaticȟ pJ tes portectit erant per quos ab altera ad alterã tamz
 iufmod populatōis incole

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 rem fuos confeftim pontes omnes côrra nos eleua uerunt \& fefe deinde in fuis domibus abdiderunt

Quä rem pppectantibus nobis \& haud parz admi rantibus ecce duodecim eorül lintres $v$ ?circiter/ fint gulas ex folo arboris caudice cauatas (quo nauium genere vtunf̂)ad nos interim per $£ q u 0 r$ aduentare confpeximus/quore naucleri effigiem noftrā habi זự̧̛ mirantes ac fefe circū nos vndiç recumferen res not eminus afpiciebart. Quos nos quoçs ex ad uerfo prof picientes/plurima eis amicicię figna des dimus/quibus cos/vt ad nos intrepidi accederent/ exhortabamur/quod tñ efficere cōtẽplerunt.Quã rem nobis pcipientibus mox ad eos remigare ince. pimus/ qui nequãã nos pręfolati 〔üt quinymmo oñs côfeftim in terram fuger̃ datis nobis interim fignis vt illos paulifper expectaremus. Īpi em̄ extē plo reuerfuri forent. Tumớ in montê quendã ppe rauert/a q̊ eductis bis.octo iuuencul \& i lintribus
 fi fữ. Et poft hg̨c ex iuuẽculipis q̨tuor í fingup na uiū nr̄are pofuẽ̃t/qué faciē di modū noshaud pař 2dmirati tūc fuimus/put vr̃a.atis ppêdere petmá

 futt vt illos amicos ñ̃os fideliffimos effe reputare" mus.Inte a ciiif

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gens non modica per marenatitans aduentare cee pit quibus Ita aduenientibus \& nauibus nris iam appropinquare incipienabus nectin proinde malis quit荈 adhue fu ficicaremur rurfü̃ ad earūdē domo nū corq fores/vetulas nônullas cõfpeximus quę im maniter vociferantes \& coelü magnis clamoribus implentes fibimet/in magnę anxietatis indiciü pro prios euellebát capillos quę res magnã malif fufpes ctionem nobis tunc attulit Tumơg fubito factư eft vt iuvencule ille quas in nîis impofuerant navibus mox i mare, pfilerent as illi qua in lintribus erant fe rea nobis elongantes mox contra nos arcus fuos intenderent nof $q$ s durifime fagittarent. $Q$ vi yo a domibus permare natantes aduenicbant fíaguli latentes in vndis lanceas ferebant ex quibus coriú proditionẽ cognonimus Et tum nô folum nofmet magnanimiter defendere verũ ctiam illos grauiter offendere incepimus Ita vt plures eorum lafellos cum ftrage eorünô parua perfregerimus \& penis tus in ponto fubmerferimus ppter quod reliquis faclis fuis cü damno conī maximo relictis per mas re natantes omnes in terram fugerunt inter emptis ex cis.xx.vel circitcr vulncratis yo pluribus $8<\mathrm{cz}$ noftris quics dumtaxat lefis qui omnes ex dei gra tia incolumitati reftitutifưt Comprehêdimus aute Be zuncer pretactis iunenculis duas $\&<$ viros tres aedehina domos corz vifitauimus \& inillas introi

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aimus veři eis quitquà (nifi vetulas duas et egro tanteem virũ vnicü)non inuenimus.qua\{quidë eo, rum domos igni fuccendere nõ voluimus ob id $\Phi$ côfcientiç frupulū hocipfum effe formidabamus Poft hęc antem ad naues noftras cũ prçtactis cî ptivis quinģ remeauimus \& cofdē captiuos/pręg ter©̈̄̄ iuuenculas ipfas/in compedibus ferreis alliga uimus Eedē ỳo iunencule captiuorzós virory ynus peruenienti nocte a nobis fubtilifirme euaferũt his itaç peractis. Sequenti die concordauimus vtrek licto portu illo longius fecundũ collem procedere mus percurfifç.lxxx.fere leucis gentem aliã quam dam côperimus lingua \& conucrfationę pęnitus a priore diuerfam Cổuenimufọ vt claffem inibi no ftram anchoraremus \& deinde in terram ipam/ $/ \overline{\mathrm{c}}$ nauiculis noftris accederemus. Vidimus autē tunc ad littus in plaga gentiū turbam.iiī. M. perfonanū. vel circiter exiftere qui cū nos a ppropriare perfen ferunt nequac̃ ncs preftolati funt quinymmo cun Etis quę habebant relictis omnes in filuas $\&$ nemo ra diffugenüt Tum vero in terrã profiliētes/\& viä vnam in filuas tendentē / $\boldsymbol{q}$ tus eft balifte iactus / $\mathbf{R}$ ambulantes mox tentoria plura inuenimus $q u$ ęibi dem ad pifcandü gens illa tetenderat $\&<$ in illis cos piofos ad de coquendas epulas fuas ignes accende rat/acppfecto beftias ac ples variare Ipecienū pifces iam affabat Vidimus autê inibicertu affari animal

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quod erat(demptis alis quibus carebat) )erpenti $\mathrm{f}_{\mathrm{i}}$ millimü tamờ brutũ ac filueftre apparebat vt eius nô modicü miraremur feritatẽ. . Nobis vero per ea dem tentoria longius pgredientibus plurimos hus iufcemodi ferpêtes viuos inuenimus quiligatis pe dibus ora quoç finibus ligata ne eadè aperire pof fent habebät/put de canibus aut feris alj̆s ne mor dere queant effici folet. Afpectū tam ferū eadẽ prę feferút animalia vt nos illa venenofa putantes nul latenus auderemus côtingere. Caprcolis in magni zudine brachio vero cü medio in longitudine ęqua lia funt. Pedes longos materialef $\ddagger$ multū ac fortí bus vngulis armator necnon \&' difcolorẽ pellẽ di" uerfilfumà habēt/roftrürुß ac faciẽ veri ferpētis ge" ftant/a quore naribus vfó ad extremã caudam fe: ta quedã per tergū fic protendit̆ vt animalia illa ve ros ferperites elle iudicaremus/ \& nihilominus eis gens p̣fata vefcii. Panē fuū gēs eadem ex pifcibus* quos in mari pifcant̃ efficiūt. Primũ em̃ pifciculos ipfos inferuentl aqua aliquantifper excoquưt. Des inde vero contundunt \& côpiftant $8 C$ in panes cả glutinant ${ }^{g}$ s fuper prunas infuper torrèt $8<$ tandẻ inde poftea manducàt/ hofquidē panes, pbaätes $\bar{q}$ bonos efferepimus. Alia quơs ©̣mpta cleulêta cis bariaç $\operatorname{tam}$ in fructibus $\overline{\text { W }}$ in yariis radicibus retif nẹnt $\overline{\text { g. longū enumerare foret. Cum aũt a filuis ad }}$ ¢̆s aufugerà nõ redirẽt nihil de rebus cork(vt amo

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plius de nobis fecurifierêt)aufetre voluinus quis nymmo in cifdé corz tentorğs prylta de reculis no fris in locis q̃ perpẽdere poffent derelinquêtes ad naues nřas fub noctê repedauimus. Sequenti \%o die cǜ ex orini titan inciperet infinitā in littore géa fê exiftere peçpimus ad giss in terrã tǘc acceffimus,
 permifcuerût \& nobifcū practicare ac côuerfari cư fecuritate cęperũt amicos nros fe plurimũ fore per fimulantes/infinuantefq̧ illic habitatiões eory non effe/vere Cp pifcandi gía aduenerăt. Et idcirco rogi tãtes vt ad eore pagos cư eis accederemus ī̄i etem̃ nos tamẽ ${ }^{2}$ amicos recipere vellent ct hăc quidẽ de nobís côcçperãt amiciciã captiuore duorx illoreç̣̂s tenebamus )occafiōe/qui cors inimici erât, Vifa àt corz magna rogãdi importunitate côcordauimus. xxij̈.ex nobis cüllili bono appatu cü fabili mente (fi cogeret neceflitas) oés ftreqnue moriCũ itaçg no bifcü per tres extitiffent dies \& tres cü eis p̂ plagã terrặ̆́s illã exceffiffemus leucas/ad pagüvnü nouẽ dumtaxat domore venimus vbi cut tot tamģ bats baris cerimonīs ab eis fufceptifuimus vt feribete penna nõvaleat/vtputa cũ choreis \& cãticis acppī̃ Ctibus hilaritate $\&$ lęticia mixtis/necnô cüferculci batrịfọ̆ mltis.Et ibidẽ noĉe illa requieuimus vbi pprias vxores fuas nobis cũ pi paigalitate obtule ชüt/ $/ \mathrm{q}$ quidẽ nos fic ịortũ folicitabãt vt vix eifdẽ

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refiftere fufficeremus poftō̄ aữr illie nocte una cu media die petftitimus/íngês ad mirabilç ppls abf © ${ }^{\circ}$ cüctatiôe ftuporeq̧ad nos infpiciēdos aduenit
 pagos(qui lỏgius in terra erãt)cômearemus quod et quidē eis ànuimus Hic dictu facile nô ê épros ip̄i nobis ipèder̃t honores Fuimus aût apud © c miltas core populatôes/per itegros nouē dies cū ip̄is eun res ob qquod nobis nîi q̣ in nauibus remãferàt retu lễr focn fe idcisco pleruqg i anxietate timoreç nõ minio exritiffe. Nobis aüt bis nouê leucis aut circi ter í corū terra exiftêibus ad naues nīas repedare propofuimus Er quidē̃ noftro in regreflu tam co, piofa ex eis viroria ac muliexù multutudo accumit qui nos vfociad mare profecuti funt/ve hoc ipfum mirabile foret. Cumqf nofni quempiã ex itinere fa eiganui ini côtingeret ipfi nos fubleuabãt $\&<$ in fuis reciaculis i quibus dormicåt fudiofiffime fubuehe
 ma funt \& maxima/fic nos cum fuis artificiss fecu Pętranimutrebãt ve nulla vợ pericula perimefces vimus:Plusimi etiã eonū nos comitabant̂ rerū fua, sū onufi/qquas nobis/dederāt illas in retiaculis illis qubus dormiut vectantes plumaria videlicet pre ditià neenô areus mulros/fagittafog multas/ac infi nitos diuerforù colorum pfitacos Alì̆ quoç coms plures fupellectilem fuă rotā ferentes animalia ctiā

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fortunatüfe felicemọ̧ putabat qui in tranfmean/ dis aquis nos in collo dorfo vefuo trâfurctare po terat $Q u$ uãprimũ autē ad mare pertigimus \& fafe los noftros confcendere voluimus in ipfo fafelorũ noftrorū afcenfu tanta ipforum nos cômitantiū et nobifcū afcendere côcertantiū ac naures noftras vi dere côcupifcentiū preffura fuit vt noftrildem fafe lipęne pre pondere fubmèrgerent̆/in ipfis autē no ftris cifdem fafelis recepimns ex eis nobifcü quot quot potuimus ac eos ad naues noftras vfog pero duximus Tanti etiam illorū per mare natantes 8 vna nos cõcomitantes aduenerüt vt tot aduentas re moleftiufcule ferremus cü fiquidẽ plurefō̃ mile le in noftras naues licet nudi \& inermes introiuifs fent/apparatum aritificiữō noftrū necnô \& nauiū ip farü magnitudinem mirantes Aft tunc quiddam rifu dignüu accidit Nam cū machinark/tormentorüu © belliconũ noftrorü quedã exonerare cõcupere mus et ppter hoc(impofito igne) machinç ip fę hor ridiffime tenuiffent pars illorü maxima( audito hu ưufcemodi tonitruo) fefe in mare natitans percipio tanit veluti folite funt rane in ripa fidêtes quę fi for taffis tumultuofum quitquã audiunt fefe in pfuns dum luti latitaturę iminergüt /quemadınodum $\& \mathbb{Z}$ gens illa tunc feceruntillió; corū̆ qui ad naues aus. fugerantefictunc perternti fuerūt vt nos facti: no\% ftrinofmet rep̄henderemus. Verüllos mox fecus

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ros effe fecinus nec amplius ftupidos effe permill mus infinuantes eis $\phi$ cü ralibus armis hoftes noe Aros perimeremus. Poft̄̄̄aũt illos illa tota die in nauibus nî is feftiuę traftauimus ipfos a nobis abi turos effe monuimus qũ feq̃nti nocte nos ab hinc abfcedere cupiebamus. $Q$ uo audito/ip̄i cü fumma amicicia beneuolentiaç mox a nobis egreffi funt. In hac gente corũç terra ${ }^{\text {entm multos cosk ntus vidi }}$ cognouiç̉ß in quibus hic diutius imorari nô cupio Cum poftea noffe vętra queat maieftas qualiter in quauis nauigationü hare męarū magis admirans da annotatuç̧ dignior ra côfcripferim ac in libelluin vnū ftilo geographico collegerem qué libellũ quas tuor dietas intitulaui \& in quo ffingula particularit \& minutim notaui fed hactenus a me non emifi ob id op illũ adhuc reuifere collationareog mihi neceffe eft Terra illa gente multa populofa eft ac multis di ucrlisíg animalibus \& noftris pauciflime fimilibus vndığ denfiffima. Déptis leonibus vrlis ceruis fui bus capreolifçß \& dàmis quę \& quidè deformita tem quadà a noftris retinent equis ac mulis afinifo © \& canbus ac omni minuto pecore(vt funt.oues \& fimilia)necnô \& vaccinis armẽtis pģnitus carêt/ verutamen alı̧s $\ddot{\phi}$ plurimis variorū generũ anima hbus(quę nô facile dixerim) habundantes funt fed samen omnia filueftra funt quibus in fuis agendis minie vtunti. Quid plura: Hy tot tantifog diuerfos

## PRIMA

 funt vt id fit vifu enarratuäß mirabile regio fiquis demilla multum amena fructiferaç eft/filuis ac ne moribus maximis plęna quæ omni tempore virēt nec corum vmëß folia fluunt. Fructus etiam innua merabiles \& noftris omnino diffimiles habent hee cine tellus in torrida zona fita eft directe fub paras Iello qui cancri tropicī defcribit vñ polus orizons tis eiufdè $\lceil$ e.xxiī.gradibus eleuat in fine climatis fe cundi Nobis autt inibi exiftentibus nos côtêplatữ populus mulus aduenit effigiem albedinemơ̧ no ftram mirantes quibus vnde veniremus fcifcitanti bus e ccelo inuifende terre gratia nos defcendiffe refpondimus quod \& vtiợ ipficredebät in hac tel lure baptifteria fontefuę facros plutes inftituimus in quibus corum infinitifeipfos baptifari fecerunt fe corū lingua charaibi hoc eft magnç fapientię vis ros vocantes Et prouincia ipfa Parias ab ipfis nun cupata eft. Poftea aút portư illum terramç deres linquētes ac fecundũ collē tranfnauigantes \& ter ram ipfam vifu femper fequentes.Dccc. Ixx.leucas a portu illo percurrimus facientes gyros circuitula $\sigma_{B}$ interim miltos \& cum gentibus multis conuer fantes practicantefos. Vbi in plerifolocis aure(fed nõ in grandi copíatemimus cū nobis terras illas re perire \& fii eis aurk foret tüc fufficeret cognofcere Et quia tunc.xī̈.iam menfibus in nauigationçnテ̄a

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perfiteramus et naualia nĩa apparatufç noftri to ti pencronfumpti erant hominefog labore perfras ct Cṓmunem inter nos de reftaurandis nauiculis noftris quę aquã vndicg recipiebant \& repetunda hyfpania iniuimus côcordiam in qua dum perfifte remus vnanimitatę prope portū vnũ eramus totis us orbis optimû in quem cü nauibus noftris intro runtes: gêtem ibidẽ infinitã inuenimus quęnos cư magna fufcepit amicicia in terra autê illa nauiculă vnă cum reliquis nauiculis noftris ac dolīs nouam fabricauimus ipfafç machinas noftras ac tormen ta bellica quę in aquis vndiç pecne peribant in ter" ram fufcepimus noftraføg naues ab eis exonerauis mus $\& \dot{\&}$ poft hęc in terrã traximus et refecimus cor reximulç 8 \& pęnitus reparauimus.In qua re eiul» dem telluris incole nô paruü nobis adiuuamen exz hibuere quinymmo nobis de fuis viftualibus ex affectu largiri foontę fua fuere propter quod inibi per pauca de noftris côfumplimus quâquidē rem ingenti pro beneplacito duximus cum fatís tenuia tunc teneremus cum quibus hyfpaniam noftram nõ (nifi indigentes) repetere potuiffemus. In portus aûtillo. $x \times x v \underset{j}{2}$.diebus perfitimus frequentius ad populationes corǘ cum eis euntes vbi finguli no" bis non partuum exhibebant honorem. Nobis aire portum eundem exire \& nauigationê noftră reflea Efere concupif centibus conquefti funt illigentem

## PRIMA

quamdã valde ferocè $\&$ cis infeftam cxifterel qui certo anni tempore per viam maris in ipfam corū terrä per infidias ingreffinune pditorie/nüc $p$ vina ©̧multos eonũ interimerent manducarentợ deins de. Alios yo in fuã terrä fualo̧ domos captiuatos ducerent/contra quos ipi ife vix defendere poffent nobis infinuantes gentè illam quamdã inhabitare infulă quę i mari leucis centủ aut circiter erat. Quã rem ipfi nobis cũ tanto affectu ac querimonia com memorauerüt ve eis ex condolentia magna credes remus/pmitteremufós ve de tandis eos vindicares mus iniurns//ppter quod illi loctantes nô parū effe eti/ /efenobilcum venturos fponte fua propria ob tulerūt/quod plures ob caulas acceptare reculauie mus demptis feptem quos data conditione recgpi mus vt foli in fuis lintribus i propriaremearẽt/ qqū reducendorū corü curà fufcipere nequaquã intenc debamus cui conditioni ipfi ${ }^{\text {og}}$ gratanter acquiesse rūt. Et ita illos amicos noftros plurimũ effectos de relinquêtes ab eis abceflimus. Reftauratis aūt repa ratiCǫ naualibus noftris//eptē pergyrū̀ maris(wem 10 int grecư \& leuantē nos ducente) nauigauimus dies Poft quos plurimis obuiauimus infulis quarî quidẽ alię habitate alị̣ yoo defertę crãt, Harū igizur vnitandē appropinquãres $8<$ naues noftras inibín fifterefacientes/vidımus ibidem वृmaximū geńa tis aceruũ quiinfulamilla ley nuncuparent quibus

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profpectis \& nauiculis phafelifq̧ noftris viris valis dis $\mathbb{Q}$ machinis tribus ftipatis terrę eidem vicinius
 iuxta littus effe confpeximus qui vt /de prioribus. habitữ eft om̃s nudi meantes/corge ftrennuo crâtl necnô bellicofi plurimū validiçapparebant/cum fiquidē oñs armis fuis arcubus videlicet \& fagit" tis lanceif̧̛̣ armati effêt/ quorum quoõk côplures parmas etiä ädrataue fcuta gerebàrqbus fic opor tune fele p̈muniebät vt eos î iaculădis fagittis fuis in aliquo nõ impedirêt. Cumç̧ cū phafelis noftris terrę ipfi ${ }^{\text {qu }}$ tus eft fagitteq volatus appropiaffemus ons citius in mare pafilierunt \& infinitis emiffis fa/ gittis fefe contra nos ftrçnue (ne in terrã defcendes re poffemus) defendere occeper̂t. Oñs vero é cor pus diuerfis coloribus depieti \& varī̆s volucrū p nis ornati erant/quos hĭ qui nobifcü venerāt afpis cientes illos ad preliandü paratos effequotiefcuns ${ }_{G} G$ fic picti aut atrium plumis ornati funt nobis infi nuerưt.Intantū aūt introitū terrę nobis impedieĩt vt faxiuomas machinas noftras in cos coacti fueri mus emittere/quare audito tumultu impetứ ${ }^{2} \mathrm{vifo}$ necnô ex eis plerilợ̧ in terrà mortuis decidiffe pro fpectis/oñas interrä iefe reçeperunt. Tumở fačo inter nos confilio. xlij. de nobis in terrä poft eos có cordauimus exilire \& aduerfus eos magno anime

## PRIMA

pugnare quod \& quidè fęcimus. Nà tū ađ̛uerfum illos in terram cü armis noftris profiluimus / cõrra IFsilli fic fere nobis oppofuer̃t vt duabus ferme ho ris cõtinuū inuicé gefferimus bellü/p̌ter id $\varphi$ de eis magnă faceremus victoriam demptis eorū prrpau cis quos baliftarij colubrinarliq hoiftri fus intere" merunt telis quod idcirco ita effectūe quia Гeipfos a nobis ac läceis enfibufç noftris fubtiliter fubtra" hebät. Verūtamen tanta demū in eos incurrimus violentiavt illos cü gladris mucronibufos noftris cominus attingeremus. Quo〔quidē cū p̣̂enfiffent om̃es in fugã per filuas \& nemora conuerfifunt/ac nos campi victores (interfectis ex eis vulneraticiç plurimis)deferuerunt. Hos autt pro die illa longio/ re fuga nequaquã infequi voluimus/ob id q̣, fatis gati nimiừ tưc effemus quinpotius ad naues nr̃as cum tanta feptem illorum que nobifcum venerant remeauimus laticia vt tantum infe gaudium vix ipfi fufcipe poffent. Sequēti aüt aduétãte die vidi mus per infulam ipfam copiofam gentium appro pinquare cateruam cormbus inftrumentifoz alins qubus in bellis vtuntur buccinantem/qui \& quos quedepictiomnes ac variss volucrü plumis ornas tierant.Ita vt iutueri mirabile foret quibus perces ptis exinnto rurfü in? nos deliberauinus côfilio vt figens hęc nobis inimicicias pararet/nofmet oums d 7

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in vnü cögregaremus videremufő̧ mutuo femper àc interim farageremus vtamicos nobis illos effir ceremus /quibus amiciciä nofträ nổ recipientibus allos quafi hoftes tractaremus/ac quotquot ex eis cöprehendere valeremus feruos noftros ac manci pia perpetua faceremus/\& tunc armatiores vt po tuimus circa plagã ipfam i gyrū nos collegimus.IV, lìvero (vt puto prę machinarü̆ noftranū ftupore) nos in terram tunc minime phibuerunt exilere. Ex iumus igiturin eos in terram quadrifariam diuifi, Ivj̈. virir limguli đecurionê fuũ fequentes $/ \&$ cū eis longū manuale gefinimus bellum. Verūtamen poft diuturnam pugnā plurimūģ certamen necnố ins teremptos ex eis multos/omnes in fugá coegimus \& ad vfç populationé corum vnam profecutifui mus vbicomprehenfis ex cis. xxv.captiuis eander corum populationêigni cõbuflimus $\&$ infuper ad naues noftras cü ipfis.xxv.captiuis repedauimus unterfectis ex eadem gente vulneratifç plurimis/ ex nriis aúr interēpto dútaxat vno fed vulneratis. xxï. quioês ex dei adiutorio fanitatē recuperaue" xût. Cęterū aũt recurfu i patriã p nos deliberato or dinato ${ }^{\text {g }}$ vini feptem illi qui nobifcülluc venerant quorü quinơ in premiffo bello vuinerati extiterãt phafelo vno in infula illa arrepto cī captivis feptē (quos illis tribuimus) tres videlicer viros \& quatu ormulieres in terram fuă cü gaudio magno etmas

## SECVNDA

gna viriü noftrarū admiratione regreffifŭt. No ¢甲 hy fpanie viam fequentes Caliciü tandem repetius mus portür cum. CC.xxī., captiúatis perfonis. $x v_{0}$ Octobris die Anno dñi.M.cccelxxxxix. Vbilętiff me fufcępti fuimus/ac vbi eofdẽ captiuos noftros vendidimus. Et hęc funt quę in hac nauigatiõe nos fra priore annotatu digniora côfpeximus.

De fecundarię nauigatiōis curfu

## VANTVM AD SECVNDARIE

 nauigationis curfum \& ea quę in illa me $q$ moratu digna confpexi/dicě̌ in fequen tibus. Eandem igit inchoantes nauigatio nem Calicium exiuimus portū Anno dñi M.ccec Ixxxix. Maì die. Quo exitu facto nos curfum nos ftrum Campiuiridis ad infulas arripientes necnő ad infularum magnę Canarį vifum tranfabeuns tes in tantū nauigauimus vt infulç cuidam quę ig* nis infula diciư̆ applicaremus/vbi facta nobis de lis gnis \& aqua puifione \& nauigatione noftra rurs fum p Lebecciư vētū incępta eft.Poft enauigatos xix.dies terrā quädă nouă tandē tenuimus/quam quidê firmā exiftere cenfuimus cõrra illà de qua fa cta in luperionbus mêtio eft $/ \&$ quę quidē terra in zona torrida extralineamęquinoctialem ad partē Auftrifita êfupraquäıneridionalis polus fe.v.ex d 4
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altat gradibus extra quodeunç̧ clima diftatça̧ cal， Jem terra a prg̨ominatis infulis vt per Lebeccium ventū côftabat leucis．ccecc．In qua terra dies cư no ftrbus ¢quales．xxvij．Iunij cum fol in cancri tropie co eft exiftere reperimus．Eandé rerrà in aquis oīs no fubmerfam necnon magnis fluminibus pfufam effe iuuenimus／quę et quidem femet plurimū viris dem et proç̧ras altifímalợ arbores habentê mon frabat vnde neminê in illa effe tunc percegpimus． Tum vero côftitimus \＆claffem noftrà anchoraui mus folutis nonmullis phafelis cũ quibus．in terram ipfam accedere tentauinus．Porro nos aditum in il fam querētes \＆circü eam feppus gyrantes ip̃ain vt prçtactū eft fic fluminū vndis vbiç̉ß perfulam ins uenimus vt nuf（̄⿹\zh26㇒⿻二丨冂刂 locus effet qui maximis aquis nõ immadefceret．Vidimus tñ interim per flumina ip fa figna ợmulta quemadmodū ipfa eadem tellus inhabirata effet \＆incolis mitis fecunda．At qqũ ea dè figna cöfideraturi in ipfam defcendere nequies bamus／ad naues nrias reuerti côcordauimus quod \＆quide fecimus．Quibus ab hinc exanchoratis／ poftea int Leuantê \＆Seroccũ venrū／collateralit fecundü terram（ fic fpirante vento）nauigauimus
 bus leucis fi in ipfam penetrare infulam valeremus Quilaboroís inanis extitit．Cüfiquidè illo in late re maxis fuxü quia Serocco ad Magiftralê abıbat lis violenṻ cöpererimus vtidem mare โe nauigabi

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le nö pręberet. Quibus cognit's incợrenientibus confilio facto côuenimus/vt nauigiū noftrū p mas re ad Magiftralē reflecteremus. Tumō fecûdū te? sam ip̄am intātū nauigauimus vt tandê portui vni applicaremus/ qui bellifimã infulam bellifimūqs linǘ quendam in cius ingreflu tenebat ifupra qué nobis nauigantibus vt in illu introire poffemns ins menfam in infula ipfa gentiū turbam a mari quaur or leucis aut circiter diftãte vidimus. Cuius rei gria leqtati nõ parü extitimus.lgiti paratis nauiculis nris vt in eandè infulã vaderemus lintré quãdã in qua ${ }^{\mathbf{\$}}$ fonç complures erant ex alto mari venire vidimus \$pter quod tüc couenimus vt eis inuafis ipos cō" prçhenderemus. Et tũc in illos nauigare in gyrum (ne euadere poffent)circüdare occẹpimus/ qृuibus fua quoç vice nitentubus vidimus illos (aura terms perata manête)remis fuis oîbus furfum erectis quà fi firmos ac refiftentes fe fignificare velle/quà rềlie idarco illos efficere puitauimus vt inde nos in admi rationem cõuerterêt. Cü yo fibi nos cominus ap, P pinğrre cognouiffent remis fuis i aquã côuerlis ret
 xiv, doliorū volacu celerrimü educebamus/quę xūc tali nauigio delata eft vt fubito ventū fué cos obrs neree. Cumç irruendi in illos adueniffet cômodis Bs ipfifere apparatưo̧ fuü in phafelo fuo ordinate lpargêres/fe quoçađ nauigandü accinxertu. Itač cì eos precterifinmus/ipi fugere conalifux. As nos

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nõnullis tuncexpeditis phafelis/validis viris ftipa tis illos tunc cõprehendere putantes mox in eos in currimus contra ̣̊s bis geminis fere horis / nobis nitentibus/nifi carbafus noftra quęcurfu eos prę terierat rurfum fuper eos reuerfa fuiffet/illos penis tus amittebamus. Cum vero ipfife eifdem noftris phafelis carbafoç vndiç conftrictos effe perfpice rent oñs $\mathfrak{q}$ circiz.xx.erãt $\&$ a terra duabus fereleu cis diftabãt/in mare faltu prilierunt. Quos nos cür phafelis noftris tota prequentes die/nullos ex eis nifitantumodo duos prçhẽdere potuimus aly̆s ois bus in terram faluis abcuntibus. In lintre autê eorū quam deferuerant bis gemini iuvenes extabantnő de corum gente geniti fed quos in tellure aliena ra puerãt/quorũ fingulis ex recenti vulnere virilia ab Cciderant/quę res admirationē nõ panuam nobis at tulit. Ho os autem cū in noftras fufcępiffemus nauis culas nutibus nobis infinuarunt quemadmodū illi cos ab ipfis manducandos abducerent/indicantes interim quod gēs hęc tã effera 8 crudelis huũananū carniin comeftrix Cambali nücupareč. Poftea aüt nos ipfam eorül lintrem nobifcum trahentes $/ \mathcal{\&} \overline{\mathrm{u}}$ nauiculis noftris curfum eonü terrã verfus arripien tes parüper interim côftitimus $\&$ naues nr̃as men cia eanữ leuca a plaga illa diftãtes anchorauimus! quam cü populü plurimü oberrare vidiffemus in illan cum ipfis nauiculis noftris fubito properauis

## SECVNDA

mus ductis nobilcum duobus illis quos in lintre a nobis inuala côprehenderamus. Quã primữ autē terram ipfam pede contigimus oms trepidi \& fes ipfos abdituri in vicinas nemorū latebras diffuges runt. Tum vero nno ex illis quos pręhenderas mus abire permiffo \& plurimis illi amicicię fignis necnõ nolis cymbalis /ac fpeculis plerifóß datis/di ximus eine ppter nos ç̧teri qui aufugerant expa/ uefcerent/qヘ̆ eoñ̃ amicos effe plurimum cupieba mus/quiabiens iuffa nofra folefter impleuit gens te illa tota.cece.videlicet fere viris/cum freminis multis a filuis fecũ ad nos eductis. Qui inermes ad nos vbicum nauiculis noftris eramus omnes vene zunt/ 8 cư quibus tữ amiciciam bonã firmauimus reftituto quo ${ }^{\circ}$ e eis alio quem captiuū tencbamus \& pariter corum lintrem quam inualeramus p na" uiü noftrarū focios apud quos erat eis reftitui man dauimus. Porro ḩ̨c eorũ linter quę ex folo arboris trunco cauata \& multü fubtiliter effecta fuerat $\AA 0 /$ : ga.xxvi.paffibus et lata duobus brachị̄s erat. Hãe cü a nobis recuperaffent \& tuto î loco fluminis re pofuiffent oms a nobis repente fugerunt nec nobi fcum amplius conuerfari voluerunt. $Q$ uo tam bar baro facto comperto illos malx fidei malęq cons ditionis exiftere coguouimus. Apud eos aure dũta xatpauculü quod ex auribus geftabant vidimus. Itaog plagailla relicta \& fecundum eam, nauigatis/

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Uxxx.circiterleucis ftationẽ quandã nauiculis tută reperimus/in quam introeưtes tantas inibi côperi/ mus gẽtes vtid mirabile forte. Cũ qbus facta ami cucia iuimus deinde cü eis ad plures corl pagos vbi minu fecure mlüğ honefte ab eis fufcepti fuimus \& ab eis iterim.cecce.vniones vnica nola emimus cum auro modico quod eis ex gratia cốtulimus. In hac terra vinũ ex fructibus femẽtibuff̧̧ expreffum जt ciceram ceruifiamue albam et rubentë bibüt/me lius aūt ex myrre pomis valde bonis côfectü erat ex quibus cü mulus ${ }^{\text {Th}}$ bonis alñs fructibus guftui fapidis \&\& corpori falubribus habüdanter comedis mus/ppterea qu tēpeftiue illuc adueneramus. Hęe
 bundans eft/genfós ipfa bonç cõuerfationis \& ma
 hoc portus.xvì.diebus cù ingenti placito pertitio mus veniětibus quotidie ad nos populis mtris nos effigiemq̧ noftrã \& albedinem neenō veftimenta armaç noftra \& nauiü noftrarü magnitudinẽ ad" miranaibus. Hịe etiã nobis gentem quandã eis infe ftam occidentē. sfus exiftere retulerunt/que gens
 ipfi habebant vniones eifdẽ inimicis fuis in bellige sariöbus aduerfus cos habitis abftulerãt nos q̊์C \& quēadmodū illos pifcarent \& quêadmodū naः [cerenẗedocentes, quorū dicta vera pfecto effe co

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gnouimus fut et maieftas vrap pofthecc amplius in selligere poterit. Relicto aut portu illo \& fecundü plagã eandè in quã côtinue gentes affluere pppicir bamus curfu noftro pducto portū quendã a liü re" Ficiêd $̣$ vnius nauiculę noftrę gĩa/in quo gēté muls zã effe côperimus/©ũ quibus nee vi nec amicicia cō uerfationē obtinere valuimus/illis fi qृ cü nauiculis noftris defcenderemus fe côtra a fpere defendentibns / \& fiqñ̃os nos fuftinere nõ valerẽt in filuas aufugientibus/ $\&$ nos nequa 莫 expectanti bus/quoř tantā barbarié nos cognofcentes ab cis exhinc difceflimus. Tuncȩ̧ inter nauigandū ìnfulū quandã in mari leucis a terra.xv. diftanté vidimus quam fin in ea populus quifpiã effet inuifere côcots daumus.In illam igiư accelerantes quandã inibi in/ venimus gentem/quę oim beftialifima fimpliciffis maç/ omniü quoç gratiofifima benignifimacs crat/cuiufquidè gentis ritus et mores ciufmodi Süt Deciuldem gentis ritu \& moribus. II VVLTV AC GESTV CORPO 4 ris brutales admodum'extant/ finguliç maxillas herba quadã viridi itrorfum re" plętas habebãt/quã pecudum inftar vfoç ruminas bant/ita vt vix quicक्すु eloqui poffent/quorü quos as finguli ex collo pufillas ficcatafçcucurbitas du as/alteram carum herba ipfa quam in ore tenebät/ alteram vero exipfis farina quadam albida gipfo

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anuruo finili plęnam gerebant/habi to bacillo quo
 us in cucurbitam farrina repletã mirtebant/ $\%$ dein de cum eo de eadem farrina extrahebãt/ quam fibi polt hęc in ore verumq̧ ponebant/herbam ipfam quā in ore geftabant eadē farrina refpergitãdo/ \&C hoc freque, atifilime paulatimoç efficiebāt/quã rem nos admiratiillius caufam fecretũģ̧/aut cur ita fa" cerẽt fatis nequuuinus côprçhēdere' Heccine gens (vt experimento didicimus)ad nos adeo famuliaris ter aduenit/ac fin nobifcü fepius antea negociati fus iffent 8 longquã amiciciä habuiffent. Nobis autẽ per plagam iplam cīe eis ambulantibus colloquent tibuf ${ }_{\beta} \&$ interim recentem aquam bibere delides rantibus/ipfi per figna fe talibus aquis penitus cas rere infinuantes vilro de herba farinaç quam in ore geftabant offercbant/propter quod regionem candem aquis deficientem op op vt fitm fuble uarent fuam herban farinam ralemin ore geftas rêt intelleximus. Vide factume eft ve nobis ita mea antibus \& circū plagam eandem vila die cum mes diaillos côcomitannibus viuidam aquam nu\{̃̈ in uenerimus/cognouerimuf¢ $\propto$ 甲 ea quam bibebant aqua ex rore noctu fuper certis folins auriculis afini fimilibus decidēte collecta crat. Quęquidem folia eiufmodi rore nocturno toe 饣e implebăt ex q̊ rore (qui optius è)idē ppis bibebatifed tñ talibus folijs

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plera ©̌e eorüloca deficiebant. Heccine gens vicius alibus çuçin terra folida funt penitus carent quins ymmo ex pifabus quos in mari pifcantur viuunt. Etenim apud eos quimagni pifcatores exiftunt pi frium ingens habundat copia/ex quibus ipfi pluri mos turtures ac $\overline{\text { on }}$ bonos pifes alios plures/vitro nobis obtulerunt. Eorum vxores herba quã in ore viri ipfi gerebant nufés vtebantur. Verum fingule cucurbitam vnam aqua impletam ex qua biberent habebant. Nullos domorum pagos nulla ve tugu ria gens hęc habent prętere ${ }^{\text {a }}$ folia grandia quedam fub quibus a folis feruore fed nö ab ymbribus $\mathfrak{f e , p}$ segunt/propter quod autumabile eft $\Phi$ parum in terra illa pluitet.Cum autẽ ad pifcandü mare adies sint folium vnü adeo grande fecum quifos pifcatu Euseffert vt illo in terram defixo \& ad Colis meas rum verfato fub illius vmbra aduerfus ęfū totum fe abfcödat. Haccine in infula ${ }^{\text {qै multa variorũ ge" }}$ nerum animalia funt quę omnia aquam' lutulentã bibưt. Videntes aũt $q$ q̣ in ea cômodi nihil nancifce remur/nos reliçta illa aliã quamdã infulâ tenuimus in quam nos ingredientes 8 recentem vnde bibes remus aquã inueftigantes/putantes interim ipfam candem terră a nullis effe habitatam/propterea $\underline{Q}^{2}$ in ea neminē inter adueniendum,p ppexeramus/dư̆ per arenã deambularemus veftigia pedum ©́mac gna nõnulla vidimus/ex quibus céfuimus q̧aficifa

## NAVIGATIO

den pedibus reliqua membra refpondebant/hos mines in eadem terra grandiffmi habitabant. No, bis aür ita per arenam deambulantibus/viă vnam in terram ducentê côperimus fecundum quam.ix. denobis cites infulam ipfam inuifere parauimus
 habitare gentes exifimaumus. Pererrata igiturle cundū camdem viam vna fere leuca quinģ in con valle quadam(quę populatę apparebant) vidimus calas/in quas introeuntes quinç in illis reperimus mulieres/vetulas videli cet duas \& iuuenculas tres quęquidem oñs fic ftatura, pceres erãt vtinde val de miraremur. Hęaũt protinus vt nos intuite funt adeo ftupefactę permanferut vt aufugiendi animo penitus deficerent. Tumos vetule ipfe lingua corut nobifcum blandiufcule loquentes/et fefe omnes int cafam vnam recipiẽtes pmulta nobis de fuis victur alibus obrulerunt Eedem $\geqslant 0$ oms longiffimo viro fratura grandiores crant \& quidé çque grandes $v t$ Francifcus de Albicio/fed meliore $\underset{T}{c}$ nos fumus ${ }^{p}$ portiôe compactę. Quibus ita compertis pofthece vna cõuenimus/vtiunêculis iplis per vim arreptis eas in Caftiliam quafi rê admirãdå abduceremus? in qua deliberatiõe nobis exiftentibus ecce.xxxyi. vel circiter virimlto ${ }^{\circ} \beta$ fecminę ipfę altiores $/ \&$ adeo egregie cōpoliti/vtillos infpıcere delectabile foret calam ipramintroire occeperüt/ppier quos camta

## SECVNDA

rirc affectifuimus turbatiōe vt fatius apud nauicus
 ingentes.areus \& fagittas necnon \& fudes pticary ue magnas inftar clauarũ ferebans/qui ingreffilo" quebantur quock inter fe mutuo ac finos compre hendere vellèt. Quo tali periculo pcrçpto diuerfa etiã îter nos tūc fęcimus côflilia, Vnis vtillos î ipfa «adê cafa inuaderemus/alīs y̌o nequa $\overline{\text { Co }}$ [ed foris potius $8<$ i platea/\& alīs venuf $\widetilde{\text { ö }}$ aduẹfus eos pu gnam quecreremus doneequid agere vellât îtellige remus affeuerantibus.Inter quęcôfilia cafamilẵfi mulate exiuimus $\&$ ad naues n ñas remcare occępi
 tes nos infecuti funt/haud minore © $\frac{\square}{B}$ nos vt autus mo trepidantes formidine/cũ nobis mirantibus ipipi quoç eminus manerent/\& nifi nobis ambulantis bus nõ ambularent. Cư シo adnaues noftras pertír giffemus 8 C in illas ex ordine itroiremus/mox oês in mare profilierunt/8 $\mathbb{C}$ apultas poft nos fagittas fuas iaculatifunt/fed tüc eos ppaucīmecuebamus Nam tum machinarũ nĩarū duas in cos (potius vt
 «u pceppto/oẽs côfertim in môtê vnữ ppiqquü fuga abierter ita ab eis ereptifuimus difeeflimufor pit Hijoês nudi vt de poribus hítưe eunt. Appellauis mulç̧ ifulâ illã/gigâtū(ob pceritatē eoru)ifulâ. No bis âtvlfius et a tra paulo diftãtiu[trãfremigãribus

## NAVIGATIO

repius interdum cum cis pugnaffe nobis accidit ob id $q$ quicõ a tellure fua fibi tollinequaquá permit tere vellent. Et vtiç quidē repet undę Caftillię pp politum iam nobis in mentem fubierat/ob id potil fimum Qpro iam fere anno in mari perftiteramus nee nifi tenuem alimentorũ neceffariorū Ç alionū munitionẽ retinebamus. Quę \& quidẽ adhuc ex vehementibus/quos pertuleramus \{olis caloribus iã cōtaminata inquinataçereãt/cū ab exitu noftro a Campiuiridis infulis vf¢̧ tunc côtinue per torris dam nauigauiffemus zonam/\& tranfuerfim per li neam ęquinoEtialem bis/vt prçhabitūeft. In qua quidem voluntate nobis peréeurantibus/nos ala boribus fubleuare noftris fanctifico cõplacuit fpiri tui. Nempe recepuи̃ quempiam pro rurlum nouan dis nauali bus noftris nobis quegrentibus ad gen tem quamdă peruenimus quę nos cü maxia fulcęg pit amicicia/\& qualquidem vnionū perlarū ve ori entalium comperimus in numero maximo tencre/ jpter quod.xlvï.diebus ibi perftitimus \&.C.xix. vnionu marchas/precio(vt eftimabamus).xl. notr fuperante ducatos/ab eis côparauimus, Nã nolas/ fpecularia/criftallinofơ̧ nônullos/neenô I Įuiffima electri folia quędā/eis tantü „ppterea tradidimus. Nempe quotquot quilibet eorum obtineret vnio nes eos pola nola donabat. Didicimus quoors ine serdum ab cis quomodo \& vibiillos pifcarentur/

## SECVNDA

qui \& quidem oftreolas in quibus nafcuint nobis plures largiti funt. Et pariter nonnullas mercatis fus mus/vbi in quibuldam.C. 8 xxx.miones in qus bufdam vero nõ̃ totidem reperiebant̃. Noueritt maieftas veftra/ $q$ nifi permaturi fint \& aconchis lĭs in quibus gignuní per fefe excidant omnine és fecti nỗ funt. Quinymmo in breuic vt fxpius ipfe expertus fum)emarce(cüt/\& i nihil redactifüt.Cü vero maruri fuerint in oftrea ipla inter carnes( preg ter id $q$ ipfis carnibus hęreant)fe feparant $/ \&$ huiufcemodi optimi fūt.Efluxis igit.xlvij). diebus nee non gente illa quam nobis plurimũ amicả effęcera mus relicta hinc ab eis exceffimus ob plurimarum rerum noftranú indigentiam/venimufos ad Antir glię infulam quã paucis nuper ab annis Criftopho rus Columbus difcooperuit in qua reculas noftras ac naualia reficiendo menfibus duobus $8 x$ diebus totidé permanfimus/plurés interdum Chrifticolar rum inibi conuer\{antiū contumelias perpetiendo quas prolixus ne nimiü fiam hic omitto. Eandē $\bar{y}$ o infulam. $x \times$ in. luln deferentes/percurfa vnius mens fiscuirn medio nauigatione Caliciü tandem portü viī̀raenfis Seprembris fubiumus /vbi cum hono re prectuç fufcepti fuimus. Er fic per dei placitum finem noftra ceppit fecunda nauigatio.

De tertio facta nauigatione

## NAVIGATIO

## EIN SIBILLIAJEXISTENTE/ET

ma a pcenis atç laboribus quos iter prmemo ratas pertulerã nauigationes paulifper re quiefcente/defiderãteça pofthçc in perlanũ terram remeare:fortuna fatigationũ meake nequā̃̄adhue fatura fereniffimo illi dño Manueli PortugallięRe gimifit in cor(nefcio vt quid) ve deftinato nuncio litteras regales fuas ad me träfmitteret quibus plus ximürogabat vt ad eũ apud Lifbonã celerius me tranferrē/ipe eteñ mirabilia mihi plurima faceret: Super qua re nondü tunc deliberaui quinymmo ei per cundemmet nunciü/me minus bene difpofitür \&ctunc male habere fignificaui. Verū fi quando ${ }^{\circ}$. recöualefcerē \& maieftaticius regį̨ meum forfars cōplaceret obfequiû omnia quęcunç vellet ex ani mo perficerè. Qui rex percipiēs $q$ me ad fe tûc tra ducere nequirē Iulianü Bartholomeū locundũ qui sune in Lifbona erat rurfum ad me deftinauit cum cômifione vt oîbus modis me ad eundẽ regê fecư̆ perduceret: ppter cuius Idliani aduenure et preces coactus tưc fui ad regẽ ipum mearẹ/quod(qui me nouerant omnes)malü effe iudicarunt. Er ita a Cas filia vbi honor mihi non madicus exhibitus extis eerat/ac rex ipfe Caftilie exiftimationē de me bos mam concęperat profectus fum/ \& quod deterius fuit hofpite infalutato/ac mox coram ipfo rege do mino Manuele meipfum obrulitqui rex de aduene

## TERTIA

tu meo non paruam vifus eft corcéppiffe" loeticiam plurimũ me interdum rogitans/vt vna cum tribus eius côferuantic̨ nauibus/quę ad exeundum \& ad nouarū terrarum inquifitionê pregparatę erant pro fieifci vellem. Et ita(quia regum preces pręcepta funt)ad cius votum confenfi.

## Tempus profectionis tertig

## IGITVR AB HOC LISBONE PORTV

 eum tribus conferuantię nauibus die Maij decíя ma.M..cccc. 8 primo abeuntes /curfum noftrum verfus magnę Canariçinfulas arripuimus: fecunc dü quas \& ad earū profpectư inftanter enauigãtes idem nauigiü noftrū collatetaliter fecundũ Affris cam occidentẽ spus §ecutifuimus. Vbi pifciü quo\% sundam(quos Parghi nuncupant)multitudinè ma moram facientes. Exinde autert ad partem illanz Ethopię/quę Beflicca diciü deúenimus/quęquidē fub torrida zona pofita eft/ \& fuper quam , xiī̆; gradibus fe Septemtrionalis erigit polus in climaя te primo vbidiebus.xi.nobis de lignis 8 aqua pro tuifionẽ parantes reftitimus/ppterid $\varphi$ Auftrü $\$$ fus p Athlanticü pelagus nauigandi mihi ineffet af fectus, Itaç̉ portü Erhiopiçillư pôt hęc relinquea
e 3 3)

## navigatio

tes func per Lebecciũ ventũ in tantŭ nauigauimıs vulx.et.vji.infra dies infulę cuidam applicuerimus quę infula DC. C. a portu eodem leucis ad Lebeccï parıê difta ret. In quibufqnidè diebus/ peius ppefs
 leris /,ppỉ ventorù nimborūue impeus/qui çpplu" rima nobis intuleré grauamina ex eo ©p nauigium noftrül lineę pręfertim equinoctiali cõtinue iunchư fuit. Inibiç in menfe lunio hyems extat ac dies no"
 verfus meridiem erans. Tandem vero omnitonan si placuit nouã vnam nobis oftendere.plagã. xvij. fcilicet Augufti/iuxta quam(leuca fepofiti ab eadē cum media) reftitimus/et poftea affumptis cymbis nõnullis in ipfa vifurifi inhabitata effer pfectis fuis mus:quam \& quidë incolas plurimos habitare re, perimus quu beftijs prauiores erât/ quèadmodum maieftas regia veftra pofthęc intelliget. In hoc yo introitus noftriprincipio gentem non percepunus
 dimus) populo multo replẹta effe intellexerimus. Deqquaquidè ora pro ipfo ferenifimo Caftiliç re" ge poffeforiũ cẹpimus/iuuenimufç illã multum amœenădar veridē effe \& apparentię bonę. Eft au" tê extralineam equinostialem Aultrum verfus ,v. gradibus/et ita eadem die ad naues noftras repeda uimus. Quia vero lignorum \& aquępenurian pa

## TERTIA

tiebamur / concordauimus iterui in terrã altera dị reuerti vt nobis de neceffarijs puideremus: inquai quidem nobis extantibus/v idimus ftantes in vnis us montis cacumine gentes quę deorfum defcēde" se non auderent/ crantoß nudi omanes neenó confí milis efficiei colorifos vt de fupionbus habini eft Nobis aut fatagentibus ve nobifcũ conuerfatū acs cederêti nô fic lecuros cos efficere valuimus vt de nobis adhue nô diffiderent. Quorū obftinatiôe p terviaç cognita/ad naues fub nocté remeauimus relictis in terra(videntibus illis)nolis fpeculifợ nö nullis ac rebus alị̆s. Cūop nos in mari eminus effe profpicerẽt/oms de ipfo môte(ppter reculas quas reliqueramus) defcenderunt plurima inter fe admi rationis figna facientes. Nectunc de aliquo nifi de aqua nobis puidimus. Craftino autē effecto mane vidimus e nauibus gentem eandem numero $\underset{\sigma}{\mathrm{F}}$ an tea maiorë paffim per terram ignes fumofo̧ faciếs tem. Vnde nos exiftimantes op nos per hoc ad fe in uitarent íuimus ad eos in terram/vbi tunc populis plurimú adueniffe côfpeximus:qui tamen a nobis longe feipfos tenebant/figna facientes interim nö nulla vt cum cis interius in infula vaderemus. Pro pter quod factueft vt ex Chrifticolis nris duo p" tinus ad hoc parati periculo ad tales eundi femets ipfos exponerent/vt quales gentes eedem forent/ aut-liquas diuitias fueciefue aromaticas vllas habe
c iij

## NAVIGATIO

rent/ipfi cognofcerent:quapropter in tantü̆ nauiū pretorem rogitauctunt/vt eis quod poftulabãt an nueret. Tum vero illi ad hoc fele accingêtes necnö plerafở de rebus fuis minutis fecũ fumentes/vLin de a gentibus eifdem mercarent̃a alias /abicrũt a no" bis data conditione vt ad nos poft quinqs dies ad fumnū remeare foliciti effèt / nos etenim illos tam diu expectaremus. Et ita tûc iter fuum in terrã arni puerunt/atç nos ad naues noftras regreflum ces" pimus vbi expectando cos diebus. vin. perftiti" mus.In quibus diebus gens per multa noua dietim fere ad plagã ipfam aduenicbat / fed nuf $\overline{\text { ®̈ nob }}$ nifurur colloqui voluerũt Septima igĩ̛aduentãte die nos in terram ip̄am itexū tendentes/gentẽ illam mulie" res fuas omnes feciur adduxiffe reperimus. $Q$ uã シ̌o primũ illuc peruenimus/mox ex eifdem vxoribus fuis ad colloquendü nobifcū $\widehat{G}$ plures miferunt $/$ fe minis tamen eifdem non fatis de nobis corfidenti" bus:quod quidem nos attendentes côcordauimus vt iuvenem vnum e nobis (qui validus agilifoc inis mium effer)ad eas quoq3 trãfinitteremus/ $\&<$ tunc vt minus fximinę ę̧dem meturèét in nauiculas nos Itras introiuimus. Quo egreffo iuvene cü feipfum enter illas immifuriffet/acilleqomnes circumftantes contingerent palparentç eum/ $/$ propter cum nõ parum admirarentur:ecce interea de monte frmis na vna vallum magnü manu geftans aduenit quæ

## TERTIA

poftō vbi ituenis ipfe crat appropiauit/talieū val lifuiictu a tergo percuflit vt fubito mortuus in tex ram excideret:quê confeftim mulieres alię corripis entes/illū in monté a pedibus ptraxerut/virios ipf qui in monte erãt ad littus cum arcubus \& fagitcis adueniêtes ecc fagittas fuas inos côj̄ciẽtes tali gẽtē noftrã affęcerūt ftupore (ob id qp nauiculçillę q̧ui bus erãt harenã nauigando radebât/ nec celerit̉au fugere tunc poterant) vt fumendorū armorum fuo rum memoriam nemo tunc haberet. Et ita ôplus res cōtra nos fagittas fuas ciaculabantur. Tum ve ro in eos quatuor machinarum noftrarum fulmina licetreeminem attingẽtia emilimus / quo audito to nitruo omnes rurfum in montê fugerunt /vbi mus lieres ipfęerât/quęiuuenê noftrm quem trucidas uerant(nobis videntibus) in frufta fecabant/neenỡ fruftaipfa nobis oftentantes ! ad ingentem quem fuccenderantignem torrebaut/ $\%<$ deinde pofthre manducabüt. Viri quoç ipfifigna nobis fimilitet facientes / geminos Chrificolas noftros alios fe patiformiter peremiffe manducaffeģ infimuabant quibus qui $\&$ vtios veraloquebancur/ in hoc ipfo credidimus, Cuius nos improperin vehementius pi guit/cum inmanitatem quam in mortuum exerce bant/oculis intueremuripfiproprîs + Quamob, rem plures $\widetilde{q}$ quadraginta denobis in animo fta biliueramus vt omes pariter terram ipfam impetu

## NA VIGATIO

petentes tam immane factur tamcp beftialem feros cà vindicatü vaderemus. Sed hac ipfum nobis na uiprętor nô permifit/\& ita tam magnã ac tam gra Ciem iniuriă paffic cũ maliuolo animo \& grandiop" probrio noftro(efficiète hoc nauiprceceptore año) impunitis illis abceffimus. Poftö aüt terram illam reliqułumus/mox îter Leuantē et Seroccū ventum (ffcitdü quos fe côrinet terra)nauigare occȩpimus plurimos ambitus plurimof ${ }^{3}$ gyros interdum fes Ctantes/quibus durẫtibus gentes nõ vidimus quẹ nobifcü practicare aut ad nos appropinquare vo" huerint. In tantū ỳo nauigauimus ve tellurem vnã nouã́ quę fecundū Lebecciũ fe porrigeret) inuene rimus. In qua cũ campù vnū circuiuiflemus(cui fan cti Vincentij campo nomen'indidimus) fecundum Lebecciü ventui pofthęc nauigare occeppimus. Dis ftatç̧ idem fancti Vincentij campus a priore terra illa vbi Crifticolę nofrri extiter̃t interempti.cl. leu cis ad partem Leuãtis: Qui et quidē canlpus 'viñ. gradibus extra lirream equinoctialem verfus aus frum eft. Cumigitita vagantes iremus/quadã die copiofam gentiiu multitudinem/nos nauiumqs no frrarum vaftitatē miranciū in terra vnà alia effe cô fpeximus:apud quos tuto in loco mox reftitimus \& deinde interram ipfum ad eos ex nauiculis nos ftris defcendimus/quos quidem mitioris effe cons ditionis $\overline{\text { © }}$ priores reperimus. Nam SKfin edomã

## TERTIA

dis illis diu claborauimus/amicos tamê noftros cns tandem effecimus:cum quibus negociando praécis candogn varie.v.manfimus diebus vbicauas fiftus las virides plurimü groffas/\& exiam nönullas in, ar borū cacuminibus liccas inuenimus. Concordauí" mus aüt vt ex eadem gente duos qui nos corū lin" guam edocerent inde traduceremus. Quamobrem tres ex eis vt in Portugallià venirent nos vitro co mitati funt. Et qin me omnia profequiac defcribe" re piget/dignetur veftra noffe maieftas $\underline{q}$ nos por tum illum linquentes/per Lebecciū ventü/ $\&$ in vis fu terre femper tranfcurrimus plures continue facis endo fcalas pluref̧̣ ambitus/ac interdü cū multis populis loquendo:donec candemverfus Auftrum extra Capicomi tropicū fuimus. Vbi fup hơrizon ta illü meridionalis polus. $x \times x$ ī. fefe extollebat gra dibus/atq minoremiam perdideramus vrfam/ipa ©s maior vrfa multū infima videbaĭ fere in fine $\mathrm{H}_{0}$ rizontis fe oftentans: K tūc per fellas alterius me ridionalis poli nofmetipfos dirigebamus /quę mul to plures mftock maiores ac lucidiores ${ }^{\text {T }}$ 亚 noftripo liftellę exifût: propter quod plurimanư illarũ figu ras confinxi /\& prçfertim earū quę prioris ac maia ris magnitudinis erant/vna cūdeclinatione diame trorū quas circa polum Auftri efficiunt/ $\% \times$ vma denotatione carüdem diametiorù \& femidiame crorũ earum prout in me is quatuor dietis fue naui

## NAVIGATIO

gationibus infpici facile poterit. Hoccine yo nauis gio noftro a campo fancti Auguftini incepto. Dcco percurimus leucas videlicet yfus ponentem.c./er verfus Lebecciü. Dc.quafquidê dü peragraremus liquis quę vidimus enumerare vellet non totidem ei papirę cartę fufficerent. Nec quidem interdum magni cômodi res inuenimus demptis infinitis cae fic̨ arboribus:et pariter plurimis quę laminas cer" zas producunt/cư quibus $\&$ miranda alia per mule ta vidimus quęfaftidiofa recēfitu forent. Et in hae quidem peragratiōe.x.fere menfibus extitimus. In qua cognito ọ mineralia nulla reperiebamus/con uenimus vna vt ab inde furgêtes alio p mare cual garemur. Quo inito iter nos confilio/mox edichur fuit acin omnem cętü noftrü vulgatū vt quicquid in tali nauigatione pręcipiendū cenferem idipfum itegriter fieret.Propter quod côfeftim edixi māda viç vbiç vt de lignis $\&$ aqua p fex menfibus mu nitionẽ omnes fibi pararent( Nam per nauiü mas giftros nos cum nauibus noftris adhuc taneũdem nauigare poffe indicaūu eft)quaquidem(quam edi xeram)facta prouifione/nos oram illă linquêtes \& inde nauigauoné noftram per Seroccū vensū̃ initi antes Februarij. xiĭ. videlictt/cum fol ęquinoctio iam appropinquaret et ad hoc Septentrionis hemi fperiü noftrū sgeret in tantü peruagatifuimus ve meridianū polü fuper horizonta illu, lij. gradibus

## TERTIA

fublimatü inuencrimus.Ita ve nee minoris vręnee maioris ftellæ ammodo in ipici valerent. Nam tūe a portuillo a quo per Seroccum abieramus scecce deucis longe iam factic eramus.iit. videlicet Aprilis: Qua die tempeftas acprocella in manitam veher mens exorta eft/vt vela noftra omniacolligere \& cum folo nudoc̨̀ malo remigare cõpelleremur per flante vehementifime Lebeccio as mari intume" fcẽte \&\& aere turbulentifimo extante. Propter quuê turbinis violentifímù impetum noftrates omnes no:a modico affecti fuerunt fupore. Noctes quo
 le circa arietis finem extante ipfee eqdem noctes ho rarum. xv.effe repertę funt:hyems of etiã nūc inibi erat vt veftra fatis perpēdere poteft maieftas. No bis autem fub hac nauigãubus turbulencia/terram vnam Aprilis.ï. vidimus penes quam. xx. circier Reucas nauigantes appropiauimus. Verũ illam om nimodo brutalem \& extraneam effe comperinius in quaquidem nee portū quempiam nec gentes ai i quas fore cũ(peximus:ob id (vt arbitror) $\underline{\text { q. }}$ tā afpe rumin ea frigus algeret ve tam acerbum vix quifs quã perpeti poffec. Porro in tanto periculo in tahs taç tempeftatis importunitate nofmet tum repeti mus/vt vix alteri alteros prę grandi turbine nos vi deremus. Quamobrem deınum cum nauium pres sore pariter concordauimus vt connauitis noftris

## NAVIGATIO

ommibus/terram illä linquendi/feop ab ea elongan di $/ 8$ in Portugalliam remeandi figna faceremus Quod côfiliū fanũ quidem etvtile fuit/cum fi inibi nocte folư adhuc illa perftitiffemus difperditions eramus. Nempecūhinc abijffemus tā grandis die requenti tempeftas in mari excitata eft/vt penitus obrui perdite metueremus. Propter quod plurima peregrinationũ vota neenon alias §plures cerimo nias (prout nautis mos effe folet)tunc fęcimus. Sub quo tempeftaris ifortunio. $v$. nauigauimus diebus demiffis omuino velis. In quibufquidem.v. diebus ec.et.lin mari penetrauimus leucas/linee interdum equinoctiali neenō mari \& aurę remperatiori fem per appropinquando/per quod nos a premiflis enf pere periculis altiffmo deo placuit. Erato huiufe modi noftra naırigatio ad tranfmontanũ ventũ $\&<$ grecü/ob id op ad Ethiopic latus pertingere cupie bamus:a quóg maris Athlantici fauces eundo M: ecc, diftabamus leucis, Ad iliãaut perfummitonan tiṣ gratiam Maj̈ bisquina pertigimus die. Vbi in plaga vina ad latus Auftrí(quę Serraliona dicitut) xv. diebus nofipfos refrigerando fuimus. Et. poo hec curfum noftrum verfus infulas Lyazori dictas arripuimus/quęquidē ínfule a Serraliona ipa, Decin \&.l. Iencis diftabant/ad quas fub Iulfifinem perz uenimusi\& pariterxv, inibi nos reficiendo pertes mmus diebus. Poft quos inde exisimus 86 ad Lif

## OVARTA

bonę noftręrecurfum nos accinximus/a qua adoe cidentis partem.cce.fepofitil leucis cramus/et cuius tandem deinde portum.M.D. ī.cü profpera $\sqrt[\text { faluas }]{ }$ tione ex cunctipotentis nutu rurfum fubiuimus /cur duabus dumtaxat nauibus:ob id qquertiä in Serrá" liona(qũ amplius nauigare nõ poffet) igni coms bufferamus. In hac aute noftra tertio curfa nauigá tione.xvi.circiter menfes permãlimus/e quibus.xis abfǫ tranfinontanę ftellę necnon $\&$ maioris vreę minorifue afpeetu nauigauimus/quo tempore nof metipfos per aliam meridionalis poliftellam reges bamus. Quę fuperius commemorata funt/inezs dem noftratertio factanauigatione relatu magis digna con〔pexi.

## De qquartę nauigationis curfus

## ELIQVVM AVTEM EST /VT

r quę in tertia nauigatione noftra profpes xerim edifferã. Quia yo iã pręlonga nar satione fatifcolet quo op hęc eadem noftra nauiga sio ad fperatum a nobis finê minime producta eftl ob aduerfitatem infortuniưue quoddam quod in maris Athlantici nobis accidit finu:idcirco brevior fiam. Igitur ex Lifbonę portu cum fex côferuantie: nauibus exiuimus cư propofito infulam vnam ver Lus horizontem pofitam inuifendi/quę Melcha di ( iii

## NAVIGATIO

citur 8 diuitiarum multarũ famofa neenõ nauium omniüflue a Gangetico fiue ab, indico mari venis entium receprus fluç ftatio eft/quemadmodũ Cas licia receptus fiue hofpitale ominū nauigantiū eft quiab oriente in occidenté \& econuerfo vagantur prout de hoc ipfo per Calicutiç viả fama eft. Que quidem infula Melcha plus ad occidenté Calicutia $\$ 30$ ip $\{$ a plus ad meridiem refpicit:quod idcirco cos gnouimus quia ipfa in afpectu. xxxıij. graduũ poli antarctici fita eft.Decima crgo Maij die. M. D.iī: nobis vnde fupra egredientibus curfum noftrü ad infulas virides nuncupatas primo dixerimus. Vbi rertm neceffariarū munimina necnon et plura dis uerforũ modorū refrigeramina fumentes et.xij. inz terdum inibi diebus ceffantes/per ventum Serocū polt hęc euanigare occępimus:cū nauidominus no
 fitatem $\&$ omniū noftrum vnanimitatem (fed folư vt fefenoftri \& fex nauiü prçpofitü of (tentarct) iuf fit vt in Serralionã Auftralem Ethiopiẹ terram ten deremus. Ad quã nobis accelerantibus \& illã tanः dem in côfpectu habentıbus tamimmanis $\&$ acer/ ba fuborta tempeftas eft/ac ventus contrarius $\&$ fortuna aduerfa inualuit/vt in iplam (quam noftris ipfi videbanns oculis) per quatriduum applicare non valudrimus:quinymmo coaeti fuerimus vt illa relicta ad priorem nauigationẽ noftram regredere

## QVARTA

mur. Quamquidem nos per Suduefium (quir vens tus eft inter meridiem et Lebecciü ) reaflumentes scc. perillam maris artitudinē nauigauimus leucas Vnde fâctū eft ve nobis extra lineam eqquinoctia lem tribus pene gradibus iam tunc exiftentibus tes ra quedam(a qua.xī. diftabamus leucis) apparues rit/quę apparitio nô parua nos affęcit admiratione Tcrra etem̃ illa/infula in medio mari multũ alta 8 e admirabilis erat/quę leucis duabus longior \& vna dilatatior nô exiftebat: in quaquidem terra nũquã quif̈̈̈ hominü aut fuerat aut habitaucrat, \& nihilo minus nobis infocliciffima fuit.In illa cm p folidū confiliü fuum \& regimen preqfeçurs navium nofter nauem fuă perdidit. Nempe illa a foopulo quodam slifa/\& inde ppter hoc in rimas diuifa fancti Lau" rètrin nocte(quç Augulti.x.eft)in mari penitus fub merfa extutit/mihil inde faluo manente demptis tan nümodo nautis. Eratç nạuis eadem doliunũ.ccc.in qua noftrę totius turbę totalis potentia crat. Cum aüt omnes circa illant fatageremus vt fi forte ipam a periculo fubrrahere valeremus:dedit mihi in man datis idem nauium pręfectus/vt củ uauicula vna in receptũ quempiam bonū vbi pupes noftras fecure omnes recipere poffemus apud inlulam candê ins uentü pergerè/nolens tamen iplée idem pręfectus vt nauem meä(quę nouem nauris meis ftipata/ \& \& in navis periclitantus adiutorio intêta foret) mecū

## NAVIGATIO

functraducerê/fed folū vt edixerat portü ynum in quifrūu irem /et in illo nạuem meã ipfam mihi. reftí tuerat. Qua iuffione recepta/ego vt mãdaurerat(fü pta mecū nautarū̃ meorũ medietate)in infuã ip̄am (aqua.iiï.diftabamus lexicis) properans/ pulcherri mum inibi powã̃/vbi claffem noftrã omnē tute fas tis fufcipere poffemus inueni. Quo côperto. viŋ̀. abidem diebus eundẽ nauiũ pręfectum cũ reliqua turba expečãdo pertiti. Qui cū nõ aduenírêt to leftenõ perum pertuli/atç qui mecū erant fic ob" ftupefcebant ve nullo confolari modo vellent. No bis aūt in hac exiftentibus anguftia/ipa octaua die puppin vnã per ęquor aduentare cốpeximus/cui vinos percipere poffent mox obuiam iuimus con Fidentes fperātefç̧̧vna quod ad meliorē portū quē piam nos fecui ducerẽt. Quibus dū appropinqualı femus $/ 8$ \& vicifiom nos refalutaffemus:retulerut illi nobis/eiuldè pręfectin nr̈i nauē in mari penitus( dès
 Vĩa pôt regia maieftas)me nõ parua affecer̃t mole ftia/cü al ilibona(ad quä reuerti habebà). M. longe exiftens leucis in longo remotoç mari me effe fen tirem. Nihilominus tamen fortunę nofmet fubïcis entes viterius pceflimus/reuerfics i primis fuimus ad memoratã infulă vbi nobis de lignis $\&<$ a ̣̂ in cổ feruãtię mę̨ naui puidimus: Erat \$o eadẽ illula pe mitus inhofpitata îhabitataç/mlta aqua viuida \&c

## QVARTA

fuam in illa fcaturiente／cum infinitis arboribus ins numerif（⿳亠二口⿱一𧰨丶龴⿱丆贝：volucribus marinis $\&$ terreftribus／que adeo fimplices erant vt fefe manu comprehendi intrepide permitterent．Propter quod tot rúc pren didimus vt naxicula vnam ex illis adimpheuerimus In ea autê nulla alia inucnimus animalia p̄terc̃ nur res ©̄̄maximos／et lacertas bifurcam caudam habē ses cum nõnullis ferpentibus quas etiam in ea vidi mus．Igitur parata nobis inibi prouifione fub vens to inter meridiem \＆Lebecciü ducête perreximus ob id ọ a rege mandatur arcepperamus／vt qualicun \＄non obftante periculo preqcedentis nauigationis viam in fequeremur．Incepto erga huiufermodina uigio portum tandem vnuminuenimus quê om＂ nium fanctonū Abbaciam nücupauimus／ad quem （profperam annuente nobis autram altiffimo）infra xvï，pertigimus dies．Difatǫ̈idem portussıcec．a $\widetilde{\mathbf{p}}$ Eata infula leucis in quoquidề portur nec pręfeofum noftrü nee quemquâ de turba alium reperimus $/ \& \%$ fitamẽinillo menfibus duobus \＆diebus quatuor expectauerimus／quibus efluxis vifo ơ illue nemo veniret conferwantia noftra turne \＆ego côcordaus mus／vt fecüdū latus longizss progrederemur．Per curfis itaç．cc．lx．leucis portui curdamalì applicuí mus in quo caftellum vnü erigere propofuimus／ quod \＆quidê pfecto feccimus relictis in illo．xxiiit． Chrifticolis nobifcum exiftenribus／quiex preqfedi

## NAVIGATIO

oftri pupe perdita collectifuerant. Porro in eode portu prg̨fatư côftruendo caftellũ \& brefilico pu* pes noftras onuftas efficiendo.v. perfitimus men fibus/ob id $q$ prę nautarū perpaucitate et plurimo rū apparatuŭ neceflitate lổgius pgredi nố valeba mus. Quibus fuperioribus ita peractis concorda" suimus poft hęc in Portugalliam reuerti/quam rem per greccư tranfmontanữ̧̧ ventum neceffe nobis erat efficere. Relictis igitur in caftello prçfato Chri fticolis. xxiiij.et cum illis. xï.machinis as alijs pluri bus armis vna cū prouifione pro fex menfibus fufs ficiente/neenõ pacata nobifcum telluris illius gens te (de qua hic minima fit mencio. licet infinitos inis bi tūc viderimus/et cum illis practicauerimus. Ná xl.fere leucas cum. xxx.ex eis in infulam ipfam per netrauimus. Vbi interdum plurima perfpeximus quę nunc fubticefcens hbello meo.iij.nauigationǘ
 lem ad partem Auftrixviii.gradibus \& extra Lif, bonę meridıanũad ocridentis partem. xxxv. prout inftrumenta noftra moriftrab añt) nós nauigatio" nem nofträ per Nornordenfium (qui inter grecum tranfmontanüqe ventus eft cua ammi propofito ad ad hane Lifbonç cinitaté pficffendi miciantesitan dem poft multos labores multaç pericula in hunc ciufdè Lifbonẹ pertü ifralexxvŋ. dies.xxviŋ̄. lunñ., M.D.iig.,cum destaude incroiuimus. Vbi honorif

## QVARTA

ce multü \& vitraç fit credibile feftiuę fufcepptifus/ mus:ob id $q$ ipfa tota ciuitas nos in mari difperdi/ ros effe exiftimabat/quẽadmodũ reliqui omnes de rurba noftrap p̄fectin iñ nauiüü fultä pręfumptio/ nē exciteràt. Quo fuperbiă modo iuftus omniū cê for deus côpenfat. Etita nū́ apud Lifbonã ipfanz fubfifto ignorans quid de me fereniffimus ipfe rex deinceps efficere cogitet/q a tantis laboribus meis iam exnunc requiefcere plurimü peroptarem/hüe
 mendans. Americus Vefputius in Lifbona


Finimū.vī.k?.Maị Anno fupra efqui millefimumnvil.

##  <br> 

# INTRODUCTION TO COSMOGRAPHY 

With Certain Necessary Principles of Geometry and Astronomy

TO WHICH ARE ADDED

## THE FOUR VOYAGES OF AMERIGO VESPUCCI

A Representation of the Entire World, both in the Solid and Projected on the Plane, Including also lands which were Unknown to Ptolemy, and have been

Recently Discovered

## DISTICH

Since God rules the stars and Cæsar the earth, Nor earth nor stars have aught greater than these.

## TO MAXIMILIAN CÆSAR AUGUSTUS

## PHILESIUS, NATIVE OF THE VOSGES

Since thy Majesty is sacred throughout the vast world, Maximilian Cæsar, in the farthest lands, Where the sun raises its golden head from the eastern waves
And seeks the straits known by Hercules' name, Where the midday glows under its burning rays, Where the Great Bear freezes the surface of the sea; And since thou, mightiest of mighty kings, dost order That mild laws should prevail according to thy will; Therefore to thee in a spirit of loyalty this world map has been dedicated
By him who has prepared it with wonderful skill.
THE END.

## PREFACE

## TO HIS MAJESTY MAXIMILIAN CÆSAR AUGUSTUS MARTINUS ILACOMILUS WISHES GOOD FORTUNE

If it is not only pleasant but also profitable in life to visit many lands and to see the most distant races (a fact that is made clear in Plato, Apollonius of Tyana, and many other philosophers, who went to the most remote regions for the purpose of exploration), who, I ask, most invincible Maximilian Cæsar, will deny that it is pleasant and profitable to learn from books the location of lands and cities and of foreign peoples,

Which Phoebus sees when he buries his rays beneath the waves,
Which he sees as he comes from the farthest east, Which the cold northern stars distress, Which the south wind parches with its torrid heat, Baking again the burning sands?
(Boethius.)
Who, I repeat, will deny that it is pleasant and profitable to learn from books the manners and

## Preface

customs of all these peoples? Surely-to express my own opinion-just às it is worthy of praise to travel far, so it can not be foolish for one who knows the world, even from maps alone, to repeat again and again that passage of the Odyssey which Homer, the most learned of poets, wrote about Ulysses:

Tell me, O Muse, of the man who after the capture of Troy
Saw the customs and the cities of many men.
Therefore, studying, to the best of my ability and with the aid of several persons, the books of Ptolemy from a Greek copy, and adding the relations of the four voyages of Amerigo Vespucci, I have prepared for the general use of scholars a map of the whole world-like an introduction, so to speak-both in the solid and projected on the plane. This work I have determined to dedicate to your most sacred Majesty, since you are the lord of the world, feeling certain that I shall accomplish my end and shall be safe from the intrigues of my enemies under your protecting shield, as though under that of Achilles, if I know that I have satisfied, to some extent at least, your Majesty's keen judgment in such matters. Farewell, most illustrious Cæsar.

At St. Dié, in the year 1507 after the birth of Our Saviour.

## ORDER OF TREATMENT

Since no one can obtain a thorough knowledge of Cosmography without some previous understanding of astronomy, nor even of astronomy itself without the principles of geometry, we shall in this brief outline say a few words:
(i) Of the elements of geometry that will be helpful to a better understanding of the material sphere;
(2) Of the meaning of sphere, axis, poles, etc.;
(3) Of the circles of the heavens;
(4) Of a certain theory, which we shall propose, of the sphere itself according to the system of degrees;
(5) Of the five celestial zones, and the application of these and of the degrees of the heavens to the earth ;
(6) Of parallels;
(7) Of the climates ${ }^{1}$ of the earth;
(8) Of winds, with a general diagram of these and other things;
(9) Of the divisions of the earth, of the various seas, of islands, and of the distances of
${ }^{1}$ The word climate is here used in its ancient sense of a zone of the earth's surface comprised between two specified parallels of latitude.

## Order of Treatment

places from one another. There will be added also a quadrant useful to the cosmographer.

Lastly, we shall add the four voyages of Amerigo Vespucci. Thus we shall describe the cosmography, both in the solid and projected on the plane.

## CHAPTER I

Of the Principles of Geometry Necessary to an Understanding of the Sphere

Since in the following pages frequent mention will be made of the circle, the circumference, the center, the diameter, and other similar terms, we ought first of all briefly to discuss these terms one by one.

A circle is a plane figure bounded by a line drawn around, and in the middle there is a point, all straight lines drawn from which to the surrounding line are equal to one another.

A plane figure is a figure, no point of which rises above or falls below the lines that bound it.

The circumference is the line that so bounds the circle that all straight lines drawn from the center to the circumference are equal to one another. The circumference is also called in Latin ambitus, circuitus, curvatura, circulus, and in Greek periphereia.

The center of a circle is a point so situated that all straight lines drawn from it to the line bounding the circle are equal to one another.

A semicircle is a plane figure bounded by the

## Principles of Geometry

diameter of the circle and one half of the circumference.

The diameter of a circle is any straight line passing through the center of the circle and extending in both directions to the circumference.

A straight line is the shortest distance between two points.

An angle is the mutual coming together of two lines. It is the portion of a figure increasing in width from the point of intersection.

A right angle is an angle formed by one line falling upon another line and making the two angles on either side equal to each other. If a right angle is bounded by straight lines, it is called plane; if bounded by curved lines, it is called curved or spherical.

An obtuse angle is an angle that is greater than a right angle.

An acute angle is less than a right angle.
A solid is a body measured by length, breadth, and height.

Height, thickness, and depth are the same.
A degree is a whole thing or part of a thing which is not the result of a division into sixtieths.

A minute is the sixtieth part of a degree.
A second is the sixtieth part of a minute.
A third is the sixtieth part of a second, and so on.

## CHAPTER II

## Sphere, Axis, Poles, Etc., Accurately <br> Defined

Before any one can obtain a knowledge of cosmography, it is necessary that he should have an understanding of the material sphere. After that he will more easily comprehend the description of the entire world which was first handed down by Ptolemy and others and afterward enlarged by later scholars, and on which further light has recently been thrown by Amerigo Vespucci.

A sphere, as Theodosius defines it in his book on spheres, is a solid and material figure bounded by a convex surface, in the center of which there is a point, all straight lines drawn from which to the circumference are equal to one another. And while, according to modern writers, there are ten celestial spheres, there is a material sphere like the eighth (which is called the fixed sphere because it carries the fixed stars), composed of circles joined together ideally by a line and axis crossing the center, that is, the earth.

The axis of a sphere is a line passing through

## Geometrical Definitions

the center and touching with its extremities the circumference of the sphere on both sides. About this axis the sphere whirls and turns like the wheel of a wagon about its axle, which is a smoothly rounded pole, the axis being the diameter of the circle itself. Of this Manilius speaks as follows:

Through the cold air a slender line is drawn, Round which the starry world revolves.

The poles, which are also called cardines (hinges) and vertices (tops), are the points of the heavens terminating the axis, so fixed that they never move, but always remain in the same place. What is said here about the axis and the poles is to be referred to the eighth sphere, since for the present we have undertaken the limitation of the material sphere, which, as we have said, resembles the eighth sphere. There are accordingly two principal poles, one the northern, also called Arcticus (arctic) and Borealis (of Boreas), the other the southern, also called Antarcticus (antarctic). Of these Vergil says:

The one pole is always above us, but the other The black Styx and the deep shades see 'neath our feet.

We who live in Europe and Asia see the arctic pole always. It is so called from Arctus, or Arcturus, the Great Bear, which is also named Calisto, Helice, and Septentrionalis, from
the seven stars of the Wain, which are called Triones; there are seven stars also in the Lesser Bear, sometimes called Cynosura. Wherefore Baptista Mantuanus says:
Under thy guidance, Helice, under thine, Cynosura, We set sail over the deep, etc.
Likewise, the wind coming from that part of the world is called Borealis and Aquilonicus (northern). Sailors are accustomed to call Cynosura the star of the sea.

Opposite to the arctic pole is the antarctic, whence it derives its name, for $\dot{\alpha} v \tau i$ in Greek is the equivalent of contra in Latin. This pole is also called Noticus and Austronoticus (southern). It can not be seen by us on account of the curvature of the earth, which slopes downward, but is visible from the antipodes (the existence of which has been established). It should be remarked in passing that the downward slope of a spherical object means its swelling or belly; that convexity is the contrary of it and denotes concavity.

There are, besides, two other poles of the zodiac itself, describing two circles in the heavens, the arctic and the antarctic. Since we have made mention of the zodiac, the arctic, and the antarctic (which are circles in the heavens), we shall treat of circles in the following chapter.

## CHAPTER III

Of the Circles of the Heavens
There are two kinds of circles, called also segmina by authors, on the sphere and in the heavens, not really existing, but imaginary; namely, great and small circles.

A great circle is one which, described on the convex surface of the sphere, divides it into two equal parts. There are six great circles: the equator, the zodiac, the equinoctial colure, the solstitial colure, the meridian, the horizon.

A small circle on the sphere is one which, described on the same surface of the sphere, divides it into two unequal parts. There are four small circles: the arctic, the circle of Cancer, the circle of Capricorn, the antarctic. Thus there are in all ten, of which we shall speak in order, first of the great circles.

The equator, which is also called the girdle of the primum mobile and the equinoctial, is a great circle dividing the sphere into two equal parts. Any point of the equator is equally distant from both poles. It is so called because, when the sun crosses it (which happens twice a year, at
the first point of Aries, in the month of March, and at the first point of Libra, in the month of September), it is the equinox throughout the world and the day and night are equal. The equinox of March or of Aries is the vernal equinox, the equinox of September or of Libra the autumnal.

The zodiac is a great circle intersecting the equator at two points, which are the first points of Aries and Libra. One half of it inclines to the north, the other to the south. It is so called either from 广óozov, meaning an animal, because it has twelve animals in it, or from $\zeta \omega \dot{\eta}$, meaning life, because it is understood that the lives of all the lower animals are governed by the movements of the planets. The Latins call it signifer (sign-bearing), because it has twelve signs in it, and the oblique circle. Therefore Vergil says:

Where the series of the signs might revolve obliquely.
In the middle of the width of the zodiac there is a circular line dividing it into two equal parts and leaving six degrees of latitude on either side. This line is called the ecliptic, because no eclipse of the sun or moon ever takes place unless both of them pass under that line in the same or in opposite degrees,--in the same, if it is to be an eclipse of the sun; in

## The Circles of the Heavens

opposite, if it is to be an eclipse of the moon. The sun always passes with its center under that line and never deviates from it. The moon and the rest of the planets wander at one time under the line, at another on one side or the other.

There are two colures on the sphere, which are distinguished as solstitial and equinoctial. They are so called from the Greek u $\omega \lambda \frac{}{2}$, which means a member and the Latin uri boves (wild oxen), which Cæsar says, in the fourth book ${ }^{1}$ of his "Commentaries," are found in the Hercynian forest and are of the size of elephants, because, just as the tail of an ox when raised makes a semicircular and incomplete member, so the colure always appears to us incomplete, for one half is visible, while the other half is concealed.

The solstitial colure, which is also called the circle of declinations, is a great circle passing through the first points of Cancer and Capricorn, as well as through the poles of the ecliptic and the poles of the world.

The equinoctial colure, in like manner, is a great circle passing through the first points of Aries and Libra and the poles of the world.

The meridian is a great circle passing through

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## The Circles of the Heavens

the point vertically overhead and the poles of the world. These circles we have drawn ten degrees apart in our world map in the solid and projected on the plane. There is a point in the heavens directly over any object, which is called the zenith.

The horizon, also called finitor (limiting line), is a great circle of the sphere dividing the upper hemisphere (that is, the half of a sphere) from the lower. It is the circle at which the vision of those who stand under the open sky and cast their eyes about seems to end. It appears to separate the part of the heavens that is seen from the part that is not seen. The horizon of different places varies, and the point vertically overhead of every horizon is called the pole, for such a point is equally distant in all directions from the finitor or the horizon itself.

Having thus considered the great circles, let us now proceed to the small circles.

The arctic circle is a small circle which one pole of the zodiac describes about the arctic pole of the world by the motion of the primum mobile.

The antarctic is a small circle which the other pole of the zodiac makes and describes about the antarctic pole of the world. We mean by the pole of the zodiac (of which we spoke also in

## The Circles of the Heavens

the preceding chapter), the point that is equally distant from any point on the ecliptic, for the poles of the zodiac are the extremities of the axis of the ecliptic. The distance of the pole of the zodiac from the pole of the world is equal to the greatest declination of the sun (of which we shall say more presently).

The tropic of Cancer is a small circle which the sun, when at the first point of Cancer, describes by the motion of the primum mobile. This point is also called the summer solstice.

The tropic of Capricorn is a small circle which the sun, when at the first point of Capricorn, describes by the motion of the primum mobile. This circle is also called the circle of the winter solstice.

Since we have mentioned declination, it should be remarked that declination occurs when the sun descends from the equinoctial to the tropic of Cancer, or from us to the tropic of Capricorn; that ascension, on the contrary, occurs when the sun approaches the equator from the tropics. It is, however, improperly said by some that the sun ascends when it approaches us and descends when it goes away from us.

Thus far we have spoken of circles. Let us now proceed to the theory of the sphere and a fuller consideration of the degrees by which such circles are distant from one another.

## CHAPTER IV

## Of a Certain Theory of the Sphere According to the System of Degrees

The celestial sphere is surrounded by five principal circles, one great and four small-the arctic, the circle of Cancer, the equator, the circle of Capricorn, and the antarctic. Of these the equator is a great circle, the other four are small circles. These circles, or rather the spaces that are between them, authors are wont to call zones. Thus Vergil, in the Georgics, says:

Five zones the heavens contain; whereof is one Aye red with flashing sunlight, fervent aye From fire; on either side to left and right Are traced the utmost twain, stiff with blue ice, And black with scowling storm-clouds, and betwixt These and the midmost, other twain there lie, By the gods' grace to heart-sick mortals given, And a path cleft between them, where might wheel On sloping plane the system of the signs.

Of the nature of the zones more will be said in the following pages. Inasmuch as we have mentioned above the pole of the zodiac that

## A Certain Theory of the Sphere

describes the arctic circle, therefore in place of further consideration this must be understood to mean the upper pole of the zodiac (situated at an elevation of $66^{\circ} 9^{\prime}$, and distant from the arctic pole $\left.24^{\circ} 5 \mathrm{I}^{\prime 1}\right)$. It must be recalled also that a degree is the thirtieth part of a sign, that a sign is the twelfth part of a circle, and that thirty multiplied by twelve gives three hundred and sixty. So it becomes clear that a degree can be defined as the three hundred and sixtieth part of a circle.

The lower pole of the zodiac describes the antarctic circle, which is situated in the same degree of declination and is at the same distance from the antarctic pole as the upper pole of the zodiac is from the arctic. The inclination of the ecliptic, or the greatest declination of the sun toward the north (which is situated $33^{\circ} 5 \mathrm{I}^{\prime 2}$ from the equinoctial), describes the tropic of Cancer.

The other inclination of the ecliptic, or the greatest declination of the sun toward the south (which is situated the same number of degrees as stated before), describes the tropic of Capricorn.

The distance between the tropic of Cancer and the arctic circle is $42^{\circ} 18^{\prime}$. The distance between the tropic of Capricorn and the antarctic circle is the same.

The middle of the heavens, being equally distant from the poles of the world, makes the equator.

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## A Certain Theory of the Sphere

Hitherto we have spoken of the five zones and of their distance from one another. We shall now briefly discuss the remaining circles.

The circle of the zodiac is determined by the poles of the zodiac. From the poles to the tropics (that is, to the greatest declinations of the sun or the solstices), the distance is $42^{\circ}$ I $8^{\prime}$. The width of the zodiac from the ecliptic toward either of the tropics is $6^{\circ}$, or in all $12^{\circ}$.

The solstices and the equinoxes mark the colures of declination and ascension. These intersect under the poles of the world along the axis of the heavens at spherical right angles; likewise along the equator. But the equinoctial colures going along the zodiac make oblique angles, while they make right angles along the zodiac of the solstices. The meridional circle, which is movable, is contained by the same axis under the poles themselves.

The circle of the horizon is determined by the zenith, for, as its upper pole, the zenith is everywhere equally distant from it. The circle of the horizon also divides our hemisphere from the other from east to west, but for those who are beneath the equinoctial, through the two poles of the world. The zenith of every horizon is always distant $90^{\circ}$, which is the fourth part of a circle, from the circumference of the horizon, while the circumference of the horizon

## A Certain Theory of the Sphere

is four times as great as the distance between the zenith and the horizon.

It is worthy of notice that the axis of the world in the material sphere passes diametrically from the poles through the center of the world, which is the earth.

The axis of the zodiac, however, is not apparent in the sphere, but has to be conceived. This intersects the middle of the axis of the world, making unequal or oblique angles at the center.

In this way, in the very creation of the world there seems to be a wonderful order and extraordinary arrangement. The old astronomers, in describing the form of the world, followed, as far as possible, in the footsteps of the Creator Himself, who made all things according to number, weight, and dimensions. We, too, while treating of this subject, inasmuch as we are so hampered by the conditions of our space that our system of minutes can be perceived only with difficulty, or not at all, and, if perceived, would beget even annoyance as well as error, shall infer the positions of circles from the markings of degrees in full. For there is not much difference between $51^{\prime}$ and a full degree, which contains $60^{\prime}$, as we have said before, and in the book on the sphere and elsewhere it is indicated in exactly this way by specialists on this subject. Therefore in the diagram which

## A Certain Theory of the Sphere

we shall here insert for the better understanding of these matters, the tropics of Cancer and Capricorn and the greatest declinations of the sun will be distant $24^{\circ}$ from the equinoctial, the same as the distance of the poles of the zodiac or the arctic and antarctic circles from the poles of the world, situated at an elevation of over $66^{\circ}$.


## CHAPTER V

Of the Five Celestial Zones and the Application of These and of the Degrees of the Heavens to the Earth

Up to this point we have spoken very briefly of several geometrical principles, of the sphere, the poles, the five zones, the circles of the world, and of a certain theory in regard to these matters. Now, in regular order, if I am not mistaken, we come to the consideration of the application of these circles and degrees to the earth. It should therefore be known that on the earth there are five regions corresponding to the above-mentioned zones. Wherefore Ovid in the Metamorphoses says:

And as two zones the northern heaven restrain, The southern two, and one the hotter midst, With five the Godhead girt th' inclosed earth, And climates five upon its face imprest.
The midst from heat inhabitable: snows
Eternal cover two: 'twixt these extremes
Two temperate regions lie, where heat and cold
Meet in due mixture.
(Metamorphoses, i, 45-51, translated by Howard.)
In order to make the matter clearer, let us

## The Five Celestial Zones

state that the four small circles, the arctic, the circle of Cancer, the circle of Capricorn, and the antarctic, divide and separate the five zones of the heavens.

In the following diagram let $a$ represent the arctic pole of the world, $b c$ the arctic circle, de the circle of Cancer, $f g$ the circle of Capricorn, $h k$ the antarctic circle, and $l$ the south pole.

The first zone, or the arctic, is all the space included between bac. This zone, being frozen stiff with perpetual cold, is uninhabited.

The second zone is all the space included between $b c$ and $d e$. This is a temperate zone and is habitable.

The third zone is all the space included between $d e$ and $f g$. This zone, on account of its heat, is scarcely habitable; for the sun, describing circles there with a constant whirling motion along the line $f e$ (which for us marks the ecliptic), by reason of its heat makes the zone torrid and uninhabited.

The fourth zone is all the space included between $f g$ and $h k$. This is a temperate zone and is habitable, if the immense areas of water and the changed conditions of the atmosphere permit it.

The fifth zone is all the space included between $h k l$. This zone is always stiff with cold and uninhabited.

## The Five Celestial Zones

When we say that any zone of the heavens is either inhabited or uninhabited, we wish it to be understood that this applies to the corresponding zone lying beneath that celestial zone. When we say that any zone is inhabited or inhabitable, we mean that it is easily inhabitable. Likewise, when we say that any zone is uninhabited or uninhabitable, we understand that it is habitable with difficulty. For there are many people who now inhabit the dried-up torrid zone, such as the inhabitants of the Golden Chersonese, ${ }^{2}$ the Taprobanenses, ${ }^{2}$ the Ethiopians, and a very large part of the earth which had always been unknown, but which has recently been discovered by Amerigo Vespucci. In this connection we may state that we shall add the four voyages of Vespucci, translated from the Italian language into French and from French into Latin.

It must be understood, as the following diagram shows, that the first zone, which is nearest to the arctic pole, is $23^{\circ} 51^{\prime}$ in extent; the second, which is the antarctic, is equal to the arctic, and is therefore the same in extent; the third, a temperate zone, is $42^{\circ} 18^{\prime}$; the fourth, which is equal to it, is also $42^{\circ} 18^{\prime}$; the fifth, which is the torrid and is in the middle, is $47^{\circ} 42^{\prime}$.

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## The Five Celestial Zones

Let us here insert the diagram.

Arctic Pole


## CHAPTER VI

Of Parallels
Parallels, which are also called Almucantars, are circles or lines equidistant in every direction and at every point, and never running together even if extended to infinity. They bear the same relation to one another as the equator does to the four small circles on the sphere, not that the second is as distant from the third as the first is from the second, for this is false, as is clear from the preceding pages, but that any two circles joined together by a perpendicular are equally distant from each other throughout their extent. For the equator is neither nearer to nor more distant from one of the tropics at any one point than at any other, since it is everywhere distant $23^{\circ} 5 I^{\prime}$ from the tropics, as we have said before. The same must be said of the distance from the tropics to the two extreme circles, either of which is distant $42^{\circ} 44^{\prime 1}$ from the nearer tropic at all points.

Although parallels can be drawn at any distance apart, yet, to make the reckoning easier,

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## Of Parallels

it has seemed to us most convenient, as it seemed to Ptolemy also, in our representation of universal cosmography, both in the solid and projected on the plane, to separate the parallels by as many degrees from one another as the following table shows. To this table a diagram also will be subjoined, in which we shall extend the parallels through the earth on both sides to the celestial sphere.

## Of Parallels

| Parallels from the equator | Degrees of the heavens | Greatest number of hours in a day | Number of miles in one degree |
| :---: | :---: | :---: | :---: |
| 21 Of Thule 8 | 63 | 20 | 281 |
| 20 | 61 | 19 |  |
| 19 | 58 | 18 | $32 \frac{1}{2}$ |
| 18 | 56 | 17 | $\frac{1}{2}$ (sic?) |
| 17 | 54 | 17 | 372 |
| 16 Of the Rhiphæan Mts. 7 | $51 \frac{1}{2}$ | $16 \frac{1}{2}$ | $40 \frac{1}{2}$ |
| 15 Of the Borysthenes <br> (Dnieper) 6 | $4^{8 \frac{1}{2}}$ | 16 | 423 |
| 14 | 45 | $15 \frac{1}{2}$ | 44 |
| 13 | $43 \frac{1}{12}$ | $15 \frac{1}{4}$ | 45 |
| 12 Of Rome 5 | $40 \frac{11}{1}$ | 15 | 47 |
| 11 | $38 \frac{7}{12}$ | $14 \frac{3}{4}$ | $48 \frac{1}{2}$ |
| Io Of Rhodes 4 | 36 | $14 \frac{1}{2}$ | 50 |
| 9 | $33 \frac{1}{3}$ | $14 \frac{1}{4}$ |  |
| 8 Of Alexandria 3 | $30 \frac{1}{3}$ | 14 | 54 |
| 7 | $27 \frac{2}{3}$ | $13 \frac{3}{4}$ |  |
| 6 Of Syene 2 | $23 \frac{5}{6}$ | $13 \frac{1}{2}$ | 57 |
| 5 | $20 \frac{1}{4}$ | $13 \frac{1}{4}$ |  |
| 4 Of Meroe I | $16 \frac{5}{12}$ | 13 |  |
| 3 | $12 \frac{1}{2}$ | $12 \frac{3}{4}$ |  |
| 2 | $8 \frac{5}{18}$ | $12 \frac{1}{2}$ |  |
| 1 | $4 \frac{1}{4}$ | $12 \frac{1}{4}$ | 59 |
| Equator equidistant from the poles |  | 12 always | 60 |
| 1 | $4 \frac{1}{4}$ | $12 \frac{1}{4}$ | 59 |
| 2 | $8 \frac{5}{12}$ | $12 \frac{1}{2}$ |  |
| 3 | $12 \frac{1}{2}$ | $12 \frac{3}{4}$ |  |
| 4 Anti-climate of Meroe | $16 \frac{5}{12}$ | 13 |  |
| 5 | $20 \frac{1}{4}$ | 1 $3 \frac{1}{4}$ |  |

This diagram shows by its numbers the climates, the degrees of the parallels, and the hours.

## Of Parallels

|  <br> Climates | Degrees | Hours | Miles |
| :--- | :---: | :---: | :---: |
| $6^{\text {Anti-Climate }}$of Syene | $23 / 6$ | $131 / 2$ | 52 |
| 7 | $27^{2 / 3}$ | $133 / 4$ |  |

And so on toward the Antarctic Pole, as the following diagram shows:


## CHAPTER VII

## Of Climates

Although the word climate properly means a region, it is here used to mean a part of the earth between two equidistant parallels, in which from the beginning to the end of the climate there is a difference of a half-hour in the longest day. The number of any climate, reckoned from the equator, indicates the number of halfhours by which the longest day in that climate exceeds the day that is equal to the night. There are seven of these climates, although to the south the seventh has not yet been explored. But toward the north Ptolemy discovered a country that was hospitable and habitable, at a distance represented by seven half-hours. These seven climates have obtained their names from some prominent city, river, or mountain.
I. The first climate is called Dia Meroes (of Meroe, modern Shendi), from sí́, which in Greek means through and governs the genitive case, and Meroe, which is a city of Africa situated in the torrid zone $16^{\circ}$ on this side of the equator, in the same parallel in which the Nile is found. Our world map, for the better understanding of which this is written, will clearly

## Of Climates

show you the beginning, the middle, and the end of this first climate and also of the rest, as well as the hours of the longest day in every one of them.
2. Dia Sienes (of Syene, modern Assuan), from Syene, a city of Egypt, the beginning of the province of Thebais.
3. Dia Alexandrias (of Alexandria), from Alexandria, a famous city of Africa, the chief city of Egypt, founded by Alexander the Great, of whom it has been said by the poet:

One world is not enough for the youth of Pella. ${ }^{1}$
-(Juvenal, x, 168. )
4. Dia Rhodon (of Rhodes), from Rhodes, an island on the coast of Asia Minor, on which in our time there is situated a famous city of the same name, which bravely resisted the fierce and warlike attacks of the Turks and gloriously defeated them.
5. Dia Rhomes (of Rome), from a wellknown city of Europe, the most illustrious among the cities of Italy and at one time the famous conqueror of all nations and the capital of the world. It is now the abode of the great Father of Fathers.
6. Dia Borysthenes (of Borysthenes, modern Dnieper), from a large river of the Scythians, the fourth from the Danube.
'A city in Macedonia, the birthplace of Alexander.

## Of Climates

7. Dia Rhipheon (of the Rhiphæan Mountains), from the Rhiphæan mountains, a prominent range in Sarmatian Europe, white with perpetual snow.

From these prominent places, through which approximately the median lines of the climates pass, the seven climates established by Ptolemy derive their names.

The eighth climate Ptolemy did not locate, because that part of the earth, whatever it is, was unknown to him, but was explored by later scholars. It is called Dia Tyles (of Thule, modern Iceland or Shetland), because the beginning of the climate, which is the twenty-first parallel from the equator, passes directly through Thule. Thule is an island in the north, of which our poet Vergil says:

The farthest Thule will serve.
-(Georgics, i, 30.)
So much for the climates north of the equator. In like manner we must speak of those which are south of the equator, six of which having corresponding names have been explored and may be called Antidia Meroes (Anti-climate of Meroe), Antidia Alexandrias, Antidia Rhodon, Antidia Rhomes, Antidia Borysthenes, from the Greek particle $\alpha v \tau i$, which means opposite or against. In the sixth climate toward the antarctic there are situated the farthest part

## Of Climates

of Africa, recently discovered, the islands Zanzibar, the lesser Java, and Seula (Sumatra?), and the fourth part of the earth, which, because Amerigo discovered it, we may call Amerige, the land of Amerigo, so to speak, or America. It is of these southern climates that these words of Pomponius Mela, the geographer, must be understood, when he says:

The habitable zones have the same seasons, but at different times of the year. The Antichthones inhabit the one, and we the other. The situation of the former zone being unknown to us on account of the heat of the intervening zone, I can speak only of the situation of the latter. -(Perieg. i, $\mathrm{I}, 9$.)

Here it should be remarked that each one of the climates generally bears products different from any other, inasmuch as the climates are different in character and are controlled by different influences of the stars. Wherefore Vergil says:

Nor can all climes all fruits of earth produce.
Here blithelier springs the corn, and here the grape, Their earth is green with tender growth of trees And grass unbidden. See how from Tmolus comes The saffron's fragrance, ivory from Ind, From Saba's weakling sons their frankincense, Iron from the naked Chalybs, castor rank From Pontus, from Epirus the prize-palms O' the mares of Elis.
-(Georgics, i, 54-59, translated by Rhoades.)

## CHAPTER VIII

Of the Winds
Since in the preceding pages we have mentioned the winds now and then (when we spoke of the north pole, the south pole, etc.), and as it is understood that a knowledge of winds is of some importance, or rather of great advantage, to cosmography, we shall for these reasons say something in this chapter about winds, also called spiritus and flatus (breeze). A wind, therefore, as defined by the philosophers, is an exhalation, warm and dry, moving laterally around the earth, etc.

Now, inasmuch as the sun has a triple rising and setting, the summer rising and setting, the equinoctial rising and setting, and the winter rising and setting, according to its relation to the two tropics and the equator, and inasmuch as there are also two sides-to the north and to the south, all of which have winds peculiar to them ; therefore it follows that there are twelve winds in all, three eastern, three western, three northern, and three southern. Of these the four which in the following diagram occupy the middle place are the principal winds; the others are secondary.

## Of the Winds

|  | East | West |  |
| :--- | :---: | :---: | :---: |
| Side | Tropic of <br> Cancer | Kaikias | Chorus |
| Principal | Equator | Subsolanus | Favonius or <br> Zephyrus |
| Side | Tropic of <br> Capricorn | Eurus or <br> Vulturnus | Africus or <br> Libs |


|  | South | North |  |
| :--- | :---: | :---: | :---: |
| Side | Euronotus | Septentrio |  |
| Principal |  | Auster or <br> Notus | Aquilo or <br> Boreas |
| Side |  | Libonotus | Trachias or <br> Circius |

The poets, however, by poetic license, according to their custom, instead of the principal winds use their secondary winds, which are also called side winds. Thus Ovid says:

Far to the east
Where Persian mountains greet the rising sun Eurus withdrew. Where sinking Phobus' rays
Glow on the western shores mild Zephyr fled.
Terrific Boreas frozen Scythia seiz'd,
Beneath the icy bear. On southern climes
From constant clouds the showery Auster rains.
-(Metamorphoses, i, 61-66, translated by Howard.)

## Of the Winds

The east wind (Subsolanus), which is rendered by the sun purer and finer than the others, is very healthful.

The west wind (Zephyrus), having a mixture of heat and moisture, melts the snows. Whence Vergil's verse:
Melts from the mountain's hoar, and Zephyr's breath Unbinds the crumbling clod.
-(Georgics, i, 44, translated by Rhoades.)
The south wind (Auster) frequently presages storms, hurricanes, and showers. Wherefore Ovid says:

Notus rushes forth
On pinions dropping rain.
-(Metamorphoses, i, 264, translated by Howard.)
The north wind (Aquilo), by reason of the severity of its cold, freezes the waters.
And frosty winter with his north the sea's face rough doth wear.
-(Vergil, Æneid, iii, 285, translated by Morris.)
In regard to these winds, I remember, our poet Gallinarius, a man of great learning, composed the following :
Eurus and Subsolanus blow from the east.
Zephyrus and Favonius fill the west with breezes.
Auster and Notus rage on Libya's farthest shores.
Boreas and Aquilo cloud-dispelling threaten from the north.

## Of the Winds

Although the north winds are naturally cold, they are softened because they pass through the torrid zone. This has been found to be true of the south wind, which passes through the torrid zone before it reaches us, as is shown in the following lines:

Wherever the cold south wind goes, it rages and binds the waters with tight fetters. But until with its blast it passes through the torrid regions, it comes welcome to our shores and hurls back the merciless shafts of the north wind. The latter wind on the contrary, which deals harshly with us, slackening its flight, becomes in like manner gentler in the lowest part of the globe. The other winds, where they direct their various courses, soon change, as they go, the natures which are proper to their homes.

We have said enough about winds. We shall now insert a general map, indicating the poles, the axes, the circles, great as well as small, the east, the west, the five zones, the degrees of longitude and latitude, both on the earth and in the heavens, the parallels, the climates, the winds, etc.

## CHAPTER IX

Of Certain Elements of Cosmography
IT is clear from astronomical demonstrations that the whole earth is a point in comparison with the entire extent of the heavens; so that if the earth's circumference be compared to the size of the celestial globe, it may be considered to have absolutely no extent. There is about a fourth part of this small region in the world which was known to Ptolemy and is inhabited by living beings like ourselves. Hitherto it has been divided into three parts, Europe, Africa, and Asia.

Europe is bounded on the west by the Atlantic Ocean, on the north by the British Ocean, on the east by the river Tanais (modern Don), Lake Maeotis (modern Sea of Azov), and the Black Sea, and on the south by the Mediterranean Sea. It includes Spain, Gaul, Germany, Rætia, Italy, Greece, and Sarmatia. Europe is so called after Europa, the daughter of King Agenor. While with a girl's enthusiasm she was playing on the sea-shore accompanied by her Tyrian maidens and was gathering flowers in baskets, she is believed to have been carried off by

## Of Certain Elements of Cosmography

Jupiter, who assumed the form of a snow-white bull, and after being brought over the seas to Crete seated upon his back to have given her name to the land lying opposite.

Africa is bounded on the west by the Atlantic Ocean, on the south by the Ethiopian Ocean, on the north by the Mediterranean Sea, and on the east by the river Nile. It embraces the Mauritanias, viz., Tingitana (modern Tangiers) and Cæsarea, inland Libya, Numidia (also called Mapalia), lesser Africa (in which is Carthage, formerly the constant rival of the Roman empire), Cyrenaica, Marmarica (modern Barca), Libya (by which name also the whole of Africa is called, from Libs, a king of Mauritania), inland Ethiopia, Egypt, etc. It is called Africa because it is free from the severity of the cold.

Asia, which far surpasses the other divisions in size and in resources, is separated from Europe by the river Tanais (Don) and from Africa by the Isthmus, which stretching southward divides the Arabian and the Egyptian seas. The principal countries of Asia are Bithynia, Galatia, Cappadocia, Pamphylia, Lydia, Cilicia, greater and lesser Armenia, Colchis, Hyrcania, Iberia, and Albania; besides many other countries which it would only delay us to enumerate one by one. Asia is so called after a queen of that name.

## Of Certain Elements of Cosmography

Now, these parts of the earth have been more extensively explored and a fourth part has been discovered by Amerigo Vespucci (as will be set forth in what follows). Inasmuch as both Europe and Asia received their names from women, I see no reason why any one should justly object to calling this part Amerige, i.e., the land of Amerigo, or America, after Amerigo, its discoverer, a man of great ability. Its position and the customs of its inhabitants may be clearly understood from the four voyages of Amerigo, which are subjoined.

Thus the earth is now known to be divided into four parts. The first three parts are continents, while the fourth is an island, inasmuch as it is found to be surrounded on all sides by the ocean. Although there is only one ocean, just as there is only one earth, yet, being marked by many seas and filled with numberless islands, it takes various names. These names may be found in the Cosmography, and Priscian in his translation of Dionysius enumerates them in the following lines:
"The vast abyss of the ocean, however, surrounds the earth on every side; but the ocean, although there is only one, takes many names. In the western countries it is called the Atlantic Ocean, but in the north, where the Arimaspi are ever warring, it is called the sluggish sea,

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the Saturnian Sea, and by others the Dead Sea,
Where, however, the sun rises with its first light, they call it the Eastern or the Indian Sea. But where the inclined pole receives the burning south wind, it is called the Ethiopian or the Red Sea,

Thus the great ocean, known under various names, encircles the whole world;
"Of its arms the first that stretches out breaks through Spain with its waves, and extends from the shores of Libya to the coast of Pamphylia. This is smaller than the rest. A larger gulf is the one that enters into the Caspian land, which receives it from the vast waters of the north. The arm of the sea which Tethys (the ocean) rules as the Saturnian Sea is called the Caspian or the Hyrcanian. But of the two gulfs that come from the south sea, one, the Persian, running northward, forms a deep sea, lying opposite the country where the Caspian waves roll; while the other rolls and beats the shores of Panchæa and extends to the south opposite to the Euxine Sea.
"Let us begin in regular order with the waters of the Atlantic, which Cadiz makes

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famous by Hercules' gift of the pillar, where Atlas, standing on a mountain, holds up the columns that support the heavens. The first sea is the Iberian, which separates Europe from Libya, washing the shores of both. On either side are the pillars. Both face the shores, the one looking toward Libya, the other toward Europe. Then comes the Gallic Sea, which beats the Celtic shores. After this the sea, called by the name of the Ligurians, where the masters of the world grew up on Latin soil, extends from the north to Leucopetra; where the island of Sicily with its curving shore forms a strait. Cyrnos (modern Corsica) is washed by the waters that bear its name and flow between the Sardinian Sea and the Celtic. Then rolls the surging tide of the Tyrrhenian Sea, turning toward the south; it enters the sea of Sicily, which turns toward the east and spreading far from the shores of Pachynum extends to Crete, a steep rock, which stands out of the sea, where powerful Gortyna and Phæstum are situated in the midst of the fields. This rock, resembling with its peak the forehead of a ram, the Greeks have justly called Kрго̃ $\mu \dot{\varepsilon} \tau \boldsymbol{\tau} \boldsymbol{\pi} о \nu$ (ram's forehead). The sea of Sicily ends at Mt. Garganus on the coast of Apulia.
"Beginning there the vast Adriatic extends toward the northwest. There also is the Ionian

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Sea, famous throughout the world. It separates two shores, which, however, meet in one point. On the right fertile Illyria extends, and next to this the land of the warlike Dalmatians. But its left is bounded by the Ausonian peninsula, whose curving shores the three seas, the Tyrrhenian, the Sicilian, and the vast Adriatic, encircle on all sides. Each of these seas within its limits has a wind peculiar to itself. The west wind lashes the Tyrrhenian, the south wind the Sicilian, while the east wind breaks the waters of the Adriatic which roll beneath its blasts.
"Leaving Sicily the sea spreads its deep expanse to the greater Syrtis which the coast of Libya encircles. After the greater Syrtis passes into the lesser, the two seas beat far and wide upon the re-echoing shores. From Sicily the Cretan Sea stretches out toward the east as far as Salmonis, which is said to be the eastern end of Crete.
"Next come two vast seas with dark waves, lashed by the north wind coming from Ismarus, which rushes straight down from the regions of the north. The first, called the Pharian Sea, washes the base of a steep mountain. The second is the Sidonian Sea, which turns toward the north, where the gulf of Issus joins it. This sea does not continue far in a straight line; for it is broken by the shores of Cilicia. Then

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bending westward it winds like a dragon because, forcing its way through the mountains, it devastates the hills and worries the forests. Its end bounds Pamphylia and surrounds the Chelidonian rocks. Far off to the west it ends near the heights of Patara.
"Next look again toward the north and behold the Ægean Sea, whose waves exceed those of all other seas, and whose vast waters surround the scattered Cyclades. It ends near Imbros and Tenedos, near the narrow strait through which the waters of the Propontis issue, beyond which Asia with its great peoples extends to the south, where the wide peninsula stretches out. Then comes the Thracian Bosporus, the mouth of the Black Sea. In the whole world they say there is no strait narrower than this. There are found the Symplegades, close together. There to the east the Black Sea spreads out, situated in a northeasterly direction. From either side a promontory stands out in the middle of the waters; one, coming from Asia on the south, is called Carambis; the other on the opposite side juts out from the confines of Europe and is called Kргог $\mu \varepsilon ́ \tau \omega \pi о \nu$ (ram's forehead.) They face each other, therefore, separated by a sea so wide that a ship can cross it only in three days. Thus you may see the Black Sea looking like a double sea, resembling the curve of a bow, which

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is bent when the string is drawn tight. The right side resembles the string, for it forms a straight line, outside of which line is found Carambis only, which projects toward the north. But the coast that encloses the sea on the left side, making two turns, describes the arc of the bow. Into this sea toward the north Lake Mæotis (modern Sea of Azov) enters, enclosed on all sides by the land of the Scythians, who call Lake Mæotis the mother of the Black Sea. Indeed, here the violent sea bursts forth in a great stream, rushing across the Cimmerian Bosporus (modern Crimea), in those cold regions where the Cimmerians dwell at the foot of Taurus. Such is the picture of the ocean ; such the glittering appearance of the deep."
(Priscian, Periegesis, 37, foll., ed. of Krehl.)
The sea, as we have said before, is full of islands, of which the largest and the most important, according to Ptolemy, are the following :

Taprobane (modern Ceylon), in the Indian Ocean under the equator; Albion, also called Britain and England; Sardinia, in the Mediterranean Sea; Candia, also called Crete, in the Ægean Sea; Selandia; Sicily, in the Mediterranean Sea; Corsica; Cyprus.

Unknown to Ptolemy: Madagascar, in the Prasodes Sea ; Zanzibar ; Java, in the East Indian

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Ocean; Angama; Peuta, in the Indian Ocean; Seula; Zipangri (Japan), in the Western Ocean.

Of these Priscian says:
"These are the large islands which the waters of the ocean surround. There are many other smaller islands, scattered about in different parts of the world, that are unknown, and that are either difficult of access to hardy sailors or suitable for harbors. Their names I cannot easily express in verse."

## (Periegesis, 609-6I 3.)

In order to be able to find out the distance between one place and another, the elevation of the pole must first be considered. It should therefore be briefly remarked that, as is clear from what precedes, both poles are on the horizon for those who live on the parallel of the equator. But as one goes toward the north, the elevation of the pole increases the farther one goes away from the equator. This elevation of the pole indicates the distance of places from the equator. For the distance of any place from the equator varies as the elevation of the pole at that place. From this the number of miles is easily ascertained, if you will multiply the number of degrees of elevation of the pole. But according to Ptolemy, from the equator to the arctic pole miles are not equal in all parts of the world. For any one of the degrees from the

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first degree of the equator up to the twelfth contains sixty Italian miles, which are equivalent to fifteen German miles, four Italian miles being generally reckoned equal to one German mile. Any degree from the twelfth degree up to the twenty-fifth contains fifty-nine miles, or fourteen and three-quarter German miles.

In order to make the matter clearer, we shall insert the following table:

| Equator- | Degrees | Degrees | Italian Miles German Miles |  |
| :---: | :---: | :---: | :---: | :---: |
|  | 1 up to | 12 cont'ng | 60 | 15 |
| Tropic- | 12 | 25 | 59 | 143/4 |
|  | 25 | 30 | 54 | $131 / 2$ |
|  | 30 | 37 | 50 | 121/2 |
|  | 37 | 41 | 47 | $11 / 4^{1}$ |
|  | 41 | 51 | 40 | 10 |
|  | 51 | 57 | 32 | 8 |
|  | 57 | 63 | 28 | 7 |
|  | 63 | 66 | 26 | $61 / 2$ |
| Arctic Circle- | 66 | 70 | 21 | 51/4 |
|  | 70 | 80 | 6 | $11 / 2$ |
| Arctic Pole- | 80 | 90 |  | - |

In like manner from the equator to either arctic or antarctic pole the number of miles in a degree of latitude varies. If you wish to find out the number of miles between one place and another, examine carefully in what degree of latitude the two places are and how many degrees there are between them; then find out from the above table how many miles there are in a degree of that kind, and multiply this number

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by the number of degrees between the places. The result will be the number of miles between them. Since these will be Italian miles, divide by four and you will have German miles.

All that has been said by way of introduction to the Cosmography will be sufficient, if we merely advise you that in designing the sheets of our world-map we have not followed Ptolemy in every respect, particularly as regards the new lands, where on the marine charts we observe that the equator is placed otherwise than Ptolemy represented it. Therefore those who notice this ought not to find fault with us, for we have done so purposely, because in this we have followed Ptolemy, and elsewhere the marine charts. Ptolemy himself, in the fifth chapter of his first book, says that he was not acquainted with all parts of the continent on account of its great size, that the position of some parts on account of the carelessness of travelers was not correctly handed down to him, and that there are other parts which happen at different times to have undergone variations on account of the cataclysms or changes in consequence of which they are known to have been partly broken up. It has been necessary therefore, as he himself says he also had to do, to pay more attention to the information gathered in our own times. We have therefore arranged matters so that in

## Appendix

the plane projection we have followed Ptolemy as regards the new lands and some other things, while on the globe, which accompanies the plane, we have followed the description of Amerigo that we subjoin.

## APPENDIX

Before closing, we shall add to the foregoing, as an appendix or corollary, a quadrant, by which may be determined the elevation of the pole, the zenith, the center of the horizon, and the climates; although, if rightly considered, this quadrant, of which we shall speak, has a bearing on this subject. For a cosmographer ought to know especially the elevation of the pole, the zenith, and the climates of the earth. This quadrant, then, is constructed in the following way. Divide any circle into four parts in such a way that the two diameters intersect at the center at right angles. One of these, which has sights at either end, will represent the axis of the poles of the world, the other the equator. Then divide that part of the circle which is between the semi-axis that has the sights and the other semi-diameter into ninety parts and the opposite part also into the same number, fix a plumb-line to the center, and your quadrant will be ready. The quadrant is used as follows: turn it so that you will see the

## Appendix

pole directly through the openings in the sights and then toward the climate and the degree to which the plumb-line will fall. Your region, as well as your zenith and the center of your horizon, lies in that climate and at that degree of elevation.


## Appendix

Having now finished the chapters that we proposed to take up, we shall here include the distant voyages of Vespucci, setting forth the consequences of the several facts as they bear upon our plan.

THE END OF THE OUTLINES

## PHILESIUS, BORN IN THE VOSGES

## To the Reader

Where the fields enriched by the papyrusproducing Siris flower and the lakes of the Moon give birth to mighty rivers, on the right are the mountains of Ius, Danchis, and Mascha, at the foot of which dwell the Ethiopians. From this region rises Africus (southwest wind), which with Libonotus (west-southwest wind) blows over the heated lands. From the other direction blows Vulturnus (east-southeast wind) upon a sweltering people, coming, as it does, in its rapid course over the Indian Ocean. There under the equator lies Taprobana, while Bassa is seen in the Prasodes Sea. Beyond Ethiopia and Bassa in the sea lies a land unknown to your maps, Ptolemy, situated under the tropic of Capricorn and its companion Aquarius. To the right lies a land encircled by the vast ocean and inhabited by a race of naked men. This land was discovered by him whom fair Lusitania boasts of as her king, and who sent a fleet across the sea. But why say more? The position and the customs of the newly-discovered race are set forth in Amerigo's book. Read this, honest reader, with all sincerity and do not imitate the rhinoceros.

THE END

# THE FOUR VOYAGES OF AMERIGO VESPUCCI 

TRANSLATED FROM THE FRENCH INTO LATIN

## The T'ranslator's Decastich to the Reader.

You who will read, perchance, this slender tome Will find within a voyage deftly told.
It tells of lands and peoples lately found;
A novel tale well suited to amuse.
A worthy task for Maro's lofty pen,
Which dressed in noble words a theme sublime.
He who the Trojan heroes wand'ring sang Should eke have sung thy voyages, Vespucci.
When in our book you've visited these lands,
The contents probe ; 'tis not the writer's care.

## Distich to the Reader.

Since what is new and well told pleases you, I bring you what's amusing here and new.

## THE FOUR VOYAGES OF AMERIGO VESPUCCI

To the most illustrious René, King of Jerusalem and of Sicily, Duke of Lorraine and Bar, Amerigo Vespucci pays humble homage and presents appropriate recommendations.

Perchance, most illustrious King, your majesty will be astonished at my foolhardiness, because I feel no apprehension in addressing to you the present long letter, even though I know you to be incessantly occupied with matters of the highest importance and with numerous affairs of State. And I shall be considered not only a presumptuous man but one who has accomplished a useless work in undertaking to send you also a story which hardly concerns your position, addressed by name to Ferdinand, King of Castile, and written in an unttractive and quite unpolished style, as if I were a man unacquainted with the Muses and a stranger to the refining influence of learning. My trust in your merits, and the absolute truth of the following accounts (on matters which neither ancient nor modern authors have written), will perhaps excuse me to your Majesty.

## The Four Voyages of Amerigo Vespucci

I was urged to write chiefly by the bearer of the present letters, Benvenuto, an humble servant of your Majesty and a friend of whom I need not be ashamed. When this gentleman found me at Lisbon, he begged me to acquaint your Majesty with the things seen by me during my four voyages to different quarters of the globe. For, you must know that I have completed four voyages of discovery to new lands: two of them were undertaken by the order of Ferdinand, the illustrious King of Castile, and carried me toward the west, through the Great Gulf of the Ocean; the other two were undertaken at the command of Manuel, King of Portugal, and carried me toward the south.

I have therefore prepared myself for the task urged upon me by Benvenuto, hoping that your Majesty will not exclude me from the number of your insignificant servants, especially if you recollect that formerly we were good friends. I refer to the years of our youth, when we were fellow-students, and together drank in the elements of grammar under the holy and venerable friar of St. Mark, my uncle, Friar Giorgio Antonio Vespucci-a man of good life and tried learning. Had it been possible for me to follow in his footsteps, I should be quite a different man to-day, as Petrarch says. However that may be, I am not ashamed of being

## The Four Voyages of Amerigo Vespucci

what I am ; for I have always taken pleasure in virtue for its own sake and in scholarship. If, then, these narratives give you no pleasure whatever, I shall repeat the words which Pliny once wrote to Mæcenas, "Formerly you were wont to take delight in my pleasantry." Your Majesty, it is true, is ever occupied with affairs of State; still, you can secretly steal just a little time in which to read these accounts, trifling though they be. I assure you that their very novelty will please. You will find in these pages no slight relief from the wasting cares and problems of government. My book will serve you as the sweet fennel, which, when taken after meals, is wont to leave a pleasant breath and to promote a better digestion.

If, by chance, I have been more prolix than the subject warrants, I crave your indulgence.

Farewell.

## PREFACE

Most illustrious King! Your Majesty must know that I came to this country primarily as a merchant. I continued in that career for the space of four years. But when I observed the various changes of fortune, and saw how vain and fleeting riches are, and how for a time they lift man to the top of the wheel and then hurl him headlong to the bottom-him, who had boasted of wide possessions; -when I saw all this, and after I had personally suffered such experiences, I determined to abandon the business career and to devote all my efforts to worthier and more enduring ends.

And so I set about visiting different parts of the world and seeing its many wonders. Both time and place were favorable to my plans. For Ferdinand, King of Castile, was at that time fitting out four ships to discover new lands in the west, and His Highness made me one of that company of explorers. We set sail from the harbor of Cadiz on the 20th of May, 1497, making our way through the Great Gulf of the

## Preface

Ocean. This voyage lasted eighteen months, during which we discovered many lands and almost countless islands (inhabited as a general rule), of which our forefathers make absolutely no mention. I conclude from this that the ancients had no knowledge of their existence. I may be mistaken; but I remember reading somewhere that they believed the sea to be free and uninhabited. Our poet Dante himself was of this opinion, when, in the 18th canto of the Inferno, he pictures the death of Ulysses. From the following pages, however, your Majesty will learn of the marvels I saw.

A description of the chief lands and of various islands, of which ancient authors make no mention, but which recently, in the 1497th year from the incarnation of Our Lord, were discovered in the course of four ocean voyages undertaken by order of their Serene Highnesses of Spain and Portugal. Of these voyages, two were through the western sea, by order of King Ferdinand of Castile; the remaining two were through southern waters, by order of Manuel, King of Portugal. To the above-mentioned Lord Ferdinand, King of Castile, Amerigo Vespucci, one of the foremost captains and commanders of that fleet, dedicates the following account of the new lands and islands.

## The First Voyage

## The First Voyage

In the year of Our Lord 1497, on the 20th day of May, we set sail from the harbor of Cadiz in four ships. On our first run, with the wind blowing between the south and the southwest', we made the islands formerly called the Fortunate Islands, but now the Grand Canary, situated at the edge of the inhabited west and within the third climate. At this place, the North Pole rises $272 / 3$ degrees above the horizon, the islands themselves being 280 leagues from the city of Lisbon, in which this present pamphlet was written. There we spent almost eight days, providing ourselves with fuel and water and other necessary things. Then, after first offering our prayers to God, we raised and spread our sails to the wind, shaping our course to the west, with a point to southwest. We kept on this course for some time, and just as the 27 th day was past we reached an unknown land, the mainland as we thought. It was distant from the islands of the Grand Canary 1000 leagues, more or less; it was inhabited, and was situated in the Torrid Zone. This we ascertained from the following observations: that the North Pole rises i6 degrees above the horizon of this new land, and that it is 75 degrees more to the west

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## The First Voyage

than the islands of Grand Canary-at least so all our instruments showed.

Here we dropped the bow anchors and stationed our fleet a league and a half from the shore. We then lowered a few boats, and, filling them with armed men, we pulled as far as the land. The moment we approached, we rejoiced not a little to see hordes of naked people running along the shore. Indeed, all those whom we saw going about naked seemed also to be exceedingly astonished at us, I suppose because they noticed that we wore clothing, and presented a different appearance from them. When they realized that we had actually arrived, they all fled to a hill near by; and though we beckoned to them and made signs of peace and friendship, we could not induce them to approach. When night closed rapidly upon us, we felt some fear in trusting our ships in such a dangerous roadstead, for there was here no protection against violent seas. We therefore agreed to depart early the next morning in search of some harbor where we might station our ships in a safe anchorage. After we had formed this resolution, we spread our sails to a gentle breeze blowing along the shore, keeping land always in sight and continually seeing the inhabitants along the beach. In this way we sailed for two whole days, and discovered a place quite suited to our

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ships, where we anchored only one-half a league from the land. Here we again saw countless hordes of people. Desiring to see them close by and to speak with them, on that very day we approached the shore in our boats and skiffs, and then we landed in good order, about forty strong. The natives, however, showed themselves very loath to approach us or have anything to do with us. We could do nothing to induce them to speak with us or to enter upon any kind of communication. But finally, by dint of much labor undertaken with this one purpose in view, we managed to allure a few of them by giving them little bells and mirrors and pieces of crystal and other such trifles. In this way they became quite easy about us. They now came to meet us, and in fact to treat concerning terms of peace and friendship. At nightfall we took leave of them and returned to our ships. The next day, when the sun was quite risen, we again saw upon the beach an endless number of men and women, the latter carrying their children with them. We furthermore noticed that they were bringing with them all their household utensils, which will be described below in their proper place. The nearer we approached the shore, more and more of the natives jumped into the water (for there are many expert swimmers among them), and swam out the dis-

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tance of a crossbow shot to meet us. They received us kindly, and in fact mingled among us with as complete assurance as if we had often met before and had frequently had dealings together. At this we were then very little pleased.

And now (so far as occasion permits), we shall devote some space to a description of their cus-toms,-such as we were able to observe.

ON THE CUSTOMS OF THE NATIVES AND THEIR MODE OF LIFE

In regard to their life and customs, all of them, both men and women, go about entirely naked, with no more covering for their private parts than when they were born. The men are of medium size, but are very well proportioned. The color of their skin approaches red, like the hair of a lion, and I believe that, if it were their custom to wear clothing, they would be as fairskinned as we are. They have no hair on their body, with the exception of that on the head, which is long and black, particularly that of the women, who are beautiful for this very reason. Their features are not very handsome, because they have broad cheek-bones like the Tartars. They do not allow any hair to grow on their eyebrows nor their eyelids nor anywhere on their body (with the exception of the head), for this reason,--because they deem it

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coarse and animal-like to have hair on the body.

All of them, both men and women, are graceful in walking and swift in running. Indeed, even their women (as we have often witnessed) think nothing of running a league or two, wherein they greatly excel us Christians. They all swim remarkably well, in fact better than one would believe possible; and the women are far better swimmers than the men, a statement which I can make with authority, for we frequently saw them swim in the sea for two leagues without any assistance whatsoever.

Their weapons are the bow and arrow, which they have learned to make very skillfully. They are unacquainted with iron and the metals, and consequently, in place of iron, they tip their arrows with the teeth of animals and fishes, and they also often harden the arrows by burning their ends. They are expert archers, with the result that they strike with their arrows whatever they aim at. In some places also the women are very skillful with the bow and arrow. They have other weapons also, such as spears or stakes sharpened at the ends, and clubs with wonderfully carved heads.

They are wont to wage war upon neighbors speaking a different language, fighting most mercilessly and sparing none, except to reserve

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them for more cruel torture later. When they go forth to battle, they take their wives with them, not that they too may participate in the fight, but that they may carry behind the fighting men all the necessary provisions. For, as we ourselves have often seen, any woman among them can place on her back, and then carry for thirty or forty leagues, a greater burden than a man (and even a strong man) can lift from the ground. They have no generals and no captains; in fact, since every one is his own leader, they go forth to war in no definite order. They never fight for power or territory, or for any other improper motive. Their one cause for war is an enmity of long standing, implanted in them from olden times. When questioned concerning the cause of such hostility, they give no other reason except that it is to avenge the death of their ancestors. Living as they do in perfect liberty, and obeying no man's word, they have neither king nor lord.

They are, however, especially inclined to war, and gird themselves for braver efforts when one of their own number is either a captive in the hands of the enemy or has been killed by them. In that case the oldest blood-relation of the prisoner or murdered man rises, rushes forth into the roads and villages, shouting and calling upon all, and urging them to hasten into battle with

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him to avenge the death of his kinsman. All are quickly stirred to the same feeling, gird themselves for the fight and make a sudden dash upon their enemies.

They observe no laws, and execute no justice. They do not punish their evildoers; indeed, not even the parents rebuke or chastise their children; and, wonderful to relate, we several times saw them quarrel among themselves. They are simple in their speech, but very shrewd and crafty. They speak rarely; and when they do speak, it is in a low tone, using the same sounds as we. On the whole they shape their words either on the teeth or the lips, employing, of course, different words from those of our language. They have many different idioms, for we found such a variety of tongues in every hundred leagues that they do not understand one another.

They observe most barbarous customs in their eating; indeed, they do not take their meals at any fixed hours, but eat whenever they are so inclined, whether it be day or night. At meals they recline on the ground, and do not use either tablecloths or napkins, being entirely unacquainted with linen and other kinds of cloth. The food is served in earthen pots which they make themselves, or else in receptacles made out of half-gourds. They sleep in a species of large

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net made of cotton and suspended in the air ; and though this mode of sleeping may appear odd and uncomfortable, I testify that, on the contrary, it is very pleasant; for it was frequently my lot to sleep in such nets, and I had a feeling of greater comfort then than when under the coverlets which we had with us.

In their person they are neat and clean, for the reason that they bathe very frequently. * * * * *

In their sexual intercourse they have no legal obligations. In fact, each man has as many wives as he covets, and he can repudiate them later whenever he pleases, without its being considered an injustice or disgrace, and the women enjoy the same rights as the men. The men are not very jealous; they are, however, very sensual. The women are even more so than the men. I have deemed it best (in the name of decency) to pass over in silence their many arts to gratify their insatiable lust. They are very prolific in bearing children, and do not omit performing their usual labors and tasks during the period of pregnancy. They are delivered with very little pain,-so true is this that on the very next day they are completely recovered and move about everywhere with perfect ease. In fact, immediately after the delivery they go to some stream to wash, and then come out of the water as

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whole and as clean as fishes. However, they are of such a cruel nature and harbor such violent hatreds that, if the husbands chance to anger them, they immediately commit some wrong. For instance, to appease their great wrath, they kill the fetus within their own wombs, and then cause an abortion. In this way countless offspring are destroyed. They have handsome, wellproportioned and well-knit figures; indeed, no blemish can possibly be discovered in them. . . .

No one of this race, as far as we saw, observed any religious law. They can not justly be called either Jews or Moors; nay, they are far worse than the gentiles themselves or the pagans, for we could not discover that they performed any sacrifices nor that they had any special places or houses of worship. Since their life is so entirely given over to pleasure, I should style it Epicurean.

They hold their habitations in common. Their dwellings are bell-shaped, and are strongly built of large trees fastened together, and covered with palm leaves, which offer ample protection against the winds and storms. In some places these dwellings were so large that we found as many as six hundred persons living in a single building. Of all these dwellings we found that eight were most thickly populated; in fact, that ten thousand souls lived within them at one and

## The First Voyage

the same time. Every eight or seven years they move the seat of their abodes. When asked the reason for this, they gave a most natural answer. They said that it was on account of the continual heat of a strong sun, and because, from dwelling too long in the same place, the air became infected and contaminated, and brought about various diseases of the body. And in truth, their point seemed to us to be well taken.

Their riches consist of variegated birds' feathers, and of strings of beads (like our pater nosters), made of fish bones, or of green or white stones. These they wear as ornaments on the forehead, or suspended from their lips and ears. Many other such useless trifles are considered riches by them, things to which we attach no value whatever. Among them there is neither buying nor selling, nor is there an exchange of commodities, for they are quite content with what nature freely offers them. They do not value gold, nor pearls, nor gems, nor such other things as we consider precious here in Europe. In fact they almost despise them, and take no pains to acquire them. In giving, they are by nature so very generous that they never deny anything that is asked of them. But as soon as they have admitted any one to their friendship, they are just as eager to ask and to receive. The greatest and surest seal of their
friendship is this : that they place at the disposal of their friends their own wives and daughters, both parents considering themselves highly honored if any one deigns to lead their daughter (even though yet a maiden) into concubinage. In this way (as I have said) they seal the bond of their friendship.

In burying the dead they follow many different customs. Some, indeed, follow the practice of inhumation, placing at the head water and food, for they believe that the dead will eat and subsist thereupon. But there is no further grief at their departure, and they perform no other ceremonies. In some places a most barbarous and inhuman rite is practised. When any one of their fellow-tribesmen is believed to be at the point of death, his relations take him into some great forest, where they place him in one of those nets in which they are accustomed to sleep. They then suspend him thus reclining between two trees, dance around him for a whole day, and then at nightfall return to their habitations, leaving at the head of the dying man water and food to last him about four days. If at the end of this period the sick man can eat and drink, becomes convalescent, regains his health, and returns to his own habitation, then all his relations, whether by blood or marriage, welcome him with the greatest ceremonies. But
there are few who can pass safely through so severe an ordeal. Indeed, no one ever visits the sick man after he is abandoned in the woods. Should he, therefore, chance to die, he receives no further burial. They have many other savage rites of burial, which I shall not mention, to avoid the charge of being too prolix.

In their sicknesses they employ many different kinds of medicines, so different from ours and so discordant with our ideas that we wondered not a little how any one could possibly survive. For, as we learned from frequent experience, if any one of them is sick with fever, they immerse and bathe him in very cold water just when the fever is at its height. Then they compel him to run back and forth for two hours around a very warm fire until he is fairly aglow with heat, and finally lead him off to sleep. We saw very many of them restored to health by this treatment. Very frequently they practise also dieting as one of their cures, for they can do without food and drink for three or four days. Again, they commonly draw blood, not from their arms (with the exception of the shoulder-blade), but from their loins and the calves of their legs. Often they bring about vomiting by chewing certain herbs which they use as medicines; and they have, in addition,

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many other cures and remedies which it would be tedious to enumerate.

They are full-blooded and phlegmatic, owing to the food they eat, which consists chiefly of roots, fruits, herbs, and fishes of different kinds. They do not raise crops of spelt or of any other grain. Their most common food is a certain root which they grind into a fairly good flour and which some of the natives call iucha, others chambi, and still others ygnami. ${ }^{1}$ They very rarely eat flesh, with the exception of human flesh; and in this they are so inhuman and so savage as to outdo even the wild animals. Indeed, all the enemies whom they either kill or capture, without discriminating between the men and the women, are relished by them with such savageness that nothing more barbarous and cruel can either be seen or heard of. Time and again it fell to my lot to see them engaged in this savage and brutal practice, while they expressed their wonder that we did not likewise eat our enemies. Your royal Majesty may rest assured on this point, that their numerous customs are all so barbarous that I can not describe them adequately here. Therefore, considering the many, many things I saw in my four voy-ages-things so entirely different from our customs and manners-I have prepared and com-

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pleted a work which I have entitled "The Four Voyages." In this book I have collected the greater part of the things I saw, and have described them as clearly as my small ability would permit. I have not, however, published it as yet. In this work, each topic is given more careful and individual attention, and therefore in the present pamphlet I shall merely touch upon them, making only general statements. And so I return to complete the account of our first voyage, from which I have made a short digression.

In the beginning of our voyage we did not see anything of great value except a few traces of gold, and this only because they pointed out to us several proofs of its existence in the soil. I suppose we should have learned much more, had we been able to understand their language. In truth, this land is so happily situated that it could not be improved. We unanimously agreed, however, to leave it and to continue our voyage further. And so, keeping land always in sight, and tacking frequently, we visited many ports, in the meanwhile entering upon communications with many different tribes of those regions. After some days we made a certain harbor in which it pleased God to deliver us from a great danger.

As soon as we entered this harbor, we dis-

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covered that their whole population, that is to say, the entire village, had houses built in the water, as at Venice. There were in all about twenty large houses, built in the shape of bells (as we have said above), and resting firmly upon strong wooden piles. In front of the doors of each house drawbridges had been erected, over which one could pass from one hut to another as if over a well-constructed road. As soon as the inhabitants of this settlement noticed us they were seized with great fear, and immediately raised the drawbridges to defend themselves against us, and hid themselves within their houses. While we were watching their actions with some degree of wonder, lo and behold about twelve of their boats (which are hollowed out of the trunk of a single tree) came over the water to meet us. The occupants of these boats looked at us and at our clothes with wonder, and rowed about us in every direction, but continued to examine us from a distance. We on our part were similarly observing them, making many signs of friendship to urge them to approach us without fear. But it was of no avail. Seeing their reluctance, we began to row in their direction. They did not await our arrival, but immediately fled to the shore, making signs to us that we should await their return, which (they signified) would be shortly. There-

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upon they hurried to a nearby hill, returning thence accompanied by sixteen maidens. With these they embarked in the above-mentioned boats and straightway returned to us. Of the maidens, four were then placed in each one of our ships, a proceeding which, as your Majesty may well believe, astonished us not a little. Then they went back and forth among our ships with their canoes, and spoke to us in such kindly manner that we began to consider them our trusty friends. While all this was going on, behold a large crowd began to swim from their houses (already described) and to advance in our direction. Though they advanced further and further, and though they were now nearing our ships, we entertained not the slightest suspicion of their actions. At this point, however, we saw some old women standing at the doors of their houses, shouting wildly and filling the air with their cries, and tearing their hair in great distress. We now began to suspect that some great danger was threatening. Immediately the girls who had been placed on board our ships leaped into the sea. Those who were in the canoes pulled off a short distance, drew their bows and began to make a vigorous attack upon us. Moreover, those who had started from their houses and were swimming over the sea toward us, were, each one of them, carrying a lance under

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water. This was sure proof of their treachery, and we began not only to defend ourselves with spirit, but also to inflict serious injuries upon them. In fact, we wrecked and sank many of the canoes, with great loss of life to their occu-pants,-a loss which became even greater because the natives abandoned their canoes entirely and swam to the shore. About twenty of them were killed and many more were wounded. Of ours only five were injured, all of whom were restored to health, with the help of God. We managed to capture two of the girls and three men. Later we visited the houses of the settlement, and upon entering found them occupied only by two old women and a sick man. We did not set fire to the houses for this reason, that we feared lest our consciences would prick us. We then returned to the ships with our five captives and put them in irons, except the girls. At night, however, both girls and one of the men very shrewdly effected their escape.

On the following day we agreed to leave that port and to sail on along the coast. After a run of about eighty leagues we came to another tribe entirely different from the former in language and customs. We anchored the fleet and approached the shore in our small boats. Here we saw a crowd of about 4,000 persons on the beach. As soon as they realized that we were

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about to land, they no longer remained where they were, but fled tor the woods and forests, abandoning on the shore everything which they had had with them. Leaping upon the land, we advanced along a road leading to the forest about as far as a crossbow shot. We soon came upon many tents which had been pitched there by that tribe for the fishing season. Within them, many fires had been built for cooking their meals, and animals and fishes of various kinds were being roasted. Among other things we saw that a certain animal was being roasted which looked very much like a serpent, except for the wings which were missing. It looked so strange and so terrible that we greatly wondered at its wild appearance. Proceeding onward through their tents, we found many similar serpents, whose feet were tied and whose mouths were muzzled so that they could not open them, as is done with dogs and other wild animals that they may not bite. Their whole appearance was so savage that we, supposing them to be poisonous, did not dare approach them. They are like a young goat in size, and half as long again as an arm. Their feet are very large and heavy, and are armed with strong claws; their skin is varicolored; their mouth and face like those of a serpent. From the end of the nose to the tip of their tail they are covered (along

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the back) with a kind of bristle, from which we decided that they were truly serpents. And yet the above-mentioned tribe eats them. That same tribe makes bread from the fishes which they catch in the sea, the process being as follows : First of all they place the fish in water and boil it for some time; then they pound it and crush it and make it into small cakes which they bake upon hot ashes and which they then eat. Upon tasting them we found them to be not at all bad. They have many other kinds of food, including different fruits and herbs, but it would take too long to describe them.

But to return to our story. Although the natives did not reappear from the woods to which they had fled, we did not take away any of their possessions, in order that we might increase their confidence in us. In fact, we left many small trifles in their tents, placing them where they would be seen, and at night returned to our ships. On the next day, when Titan began to rise above the horizon, we saw a countless multitude upon the shore. We immediately landed; and though the natives still appeared to be somewhat afraid of us, yet they mingled among us, and began to deal and to converse with us with complete security. They signified to us that they would be our friends, that the tents which we saw were not their real

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houses, and that they had come to the shore to fish. Therefore they begged us to accompany them to their villages, assuring us that they wished to welcome us as friends. We were made to understand that the cause of the friendship which they had conceived for us was our arrest of those two prisoners, who turned out to be enemies of theirs. And so, seeing the persistence with which they asked us, twenty-three of us decided to go with them, fully armed and with the firm resolve to die valiantly if need be.

After remaining there for three days, we marched inland with them for three leagues and came to a village consisting of but nine habitations. There we were received with such numerous and such barbarous ceremonies that my pen is too weak to describe them. For instance, we were welcomed with dances and with songs, with lamentations mingled with cries of joy and of happiness, with much feasting and banqueting. Here we rested for the night, and the natives most generously offered us their wives. . . . After we had remained that night and half of the next day, a large and wondering crowd came to look at us, without hesitation and fear. Their elders now asked us to go with them to their other villages situated farther inland, to which we again agreed. It is not an easy task to recount the honors which they

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showered upon us here. In short, we went about in their company for nine whole days, visiting very many of their settlements, with the result that (as we afterward learned), our companions whom we had left in the ships began to be very anxious about us and to entertain serious fears for our safety. And so, after having penetrated about eighteen leagues into the interior of the country, we decided to make our way back to the ships. On our return a great crowd of men and women met us and accompanied us all the way to the sea,-a fact which is of itself very remarkable. But there is more. Whenever it happened that one of our company would lag behind from weariness, the natives came to his assistance and carried him most zealously in those nets in which they sleep. In crossing the rivers, too (which in their country are very numerous and very large), they were so careful with the contrivances they employed that we never feared the slightest danger. Moreover, many of them, laden down with their gifts, which they carried in those same nets, accompanied us. The gifts consisted of feathers of very great value, of many bows and arrows, and of numberless parrots of different colors. Many others, also, were bringing their household goods and their animals. In fine, they all reckoned themselves fortunate if, in crossing a

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stream, they could bear us on their shoulders or on their backs.

However, we hastened to the sea as quickly as possible. As we were about to embark in our boats, so great was the crowding of the natives in their attempt to accompany us still further and to embark with us and visit our ships, that our boats were almost swamped by the load. We took on board, however, as many as we could accommodate and brought them to our ships. In addition to those whom we had on board, so many of them accompanied us by swimming that we were somewhat troubled by their approach; for, about a thousand of them boarded our ships (naked and unarmed though they were), and examined with wonder our equipment and arrangements and the great size of the ships themselves. And then a laughable thing happened. We desired to shoot off some of our war engines and artillery, and therefore put a match to the guns. These went off with such a loud report that a large portion of the natives, upon hearing this new thunder, leaped into the water and swam away, like frogs sitting on the bank, which jump into the bottom of the marsh and hide the moment they are startled by a noise. In this way acted the natives. Those natives who had fled to another portion of the ships were so thoroughly fright-

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ened that we repented and chid ourselves for what we had done. But we quickly reassured them, and did not permit them to remain any longer in ignorance, explaining that it was with these guns that we killed our enemies.

After entertaining them the whole day upon our ships, we warned them to depart because we intended to sail during the night; whereupon they took leave of us in a most friendly and kindly manner. We saw and learned very many customs of this tribe and region, but it is not my intention to dwell upon them here. Your Majesty will be in a position to learn later of all the more wonderful and noteworthy things I saw in each of my voyages; for I have collected them in one work written after the manner of a geographical treatise and entitled "The Four Voyages." In this work I give individual and detailed descriptions, but I have not yet offered it to the public because I must still revise it and verify my statements.

That land is very thickly populated, and everywhere filled with many different animals, very unlike those of our country. In common with us they have lions, bears, stags, pigs, goats, and fallow deer, which are, however, distinguished from ours by certain differences. They are entirely unacquainted with horses, mules, asses, dogs, and all kinds of small cattle (such as

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sheep and the like), and cows and oxen. They have, however, many species of animals which it would be difficult to name, all of them wild and of no use to them in their domestic affairs. But why say more? The land is very rich in birds, which are so numerous and so large, and have plumes of such different kinds and colors, that to see and describe them fills us with wonder. The climate, moreover, is very temperate and the land fertile, full of immense forests and groves, which are always green, for the leaves never fall. The fruits are countless and entirely different from ours. The land itself is situated in the torrid zone, on the edge of the second climate, precisely on the parallel which marks the tropic of Cancer, where the Pole rises twenty-three degrees above the horizon. During this voyage many came to look at us, marveling at the whiteness of our skin. And when they asked us whence we came, we answered that we had descended from heaven to pay the earth a visit, a statement which was believed on all sides. We established in this land many baptismal fonts or baptisteries, in which they made us baptize countless numbers, calling us in their own tongue "charaibi,"-that is to say, "men of great wisdom." The country itself is called by them "Parias."

Later we left that harbor and land, sailing
along shore and keeping land always in view. We sailed for 870 leagues, making many tacks and treating and dealing with numerous tribes. In many places we obtained gold, but not in great quantities; for it sufficed us for the present to discover those lands and to know that there was gold therein. And since by that time we had already been thirteen months on our voyage, and since the tackle and rigging were very much the worse for wear and the men were reduced by fatigue, we unanimously agreed to repair our small boats (which were leaking at every point) and to return to Spain. Just as we had reached this conclusion, we neared and entered the finest harbor in the world. Here we again met a countless multitude, who received us in a very friendly manner. On the beach we built a new boat with material taken from the other ships and from barrels and casks, placed upon dry land our rigging and military engines, which were almost rotting away in the water, lightened our ships and drew them up on land. Then we repaired them and patched them, and gave them a thorough overhauling. During all these occupations the inhabitants of the country gave us no slight assistance. Indeed, they offered us provisions out of friendship and unasked, so that we consumed very little of our own supplies. This we considered a great boon,

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for our supplies at this stage were rather too meager to enable us 'to reach Spain without stinting ourselves.

We remained in that port thirty-seven days, frequently visiting the villages in company with the natives and being treated with great respect by each and every one of them. When we at last expressed our intention to leave that harbor and to resume our voyage, the natives complained to us that there was a certain savage and hostile tribe, which, at a certain time of the year, came over the sea to their land, and either through treachery or through violence killed and devoured a great number of them. They added that others were led off as prisoners to the enemy's country and home, and that they could not defend themselves against these enemies, making us understand that that tribe inhabited an island about one hundred leagues out at sea. They related their story to us in such plaintive tones that we took pity on them and believed them, promising that we should exact punishment for the injuries inflicted upon them. Whereat they greatly rejoiced and of their own accord offered to accompany us. We refused for several reasons, agreeing to take seven with us on the following condition : that at the close of the expedition they should return to their country alone and in their own canoes,

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for we did not by any means intend to take the trouble of bringing them back. To this condition they gladly assented, and so we took leave of the natives, who had become our dear friends, and departed.

We sailed about in our refitted ships for seven days, with the wind blowing between the northeast and east. At the end of this period we reached many islands, of which some were inhabited and others not. We thereupon approached one of them; and while endeavoring to anchor our ships we saw a great horde of people on the island, which the inhabitants call Ity. After examining them for some time, we manned the small boats with brave men and three guns, and rowed nearer the shore, which was filled with 400 men and very many women, all of whom (like the others) went about naked. The men were well built, and seemed very warlike and brave, for they were all equipped with their usual arms, namely, the bow and arrow and the lance. Very many of them, moreover, bore round shields or even square shields, with which they defended themselves so skillfully that they were not hindered thereby in shooting their arrows.

When we had come in our boats to within a bowshot of the land, they leaped into the sea and shot an infinite number of arrows at us,

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endeavoring might and main to prevent our landing. Their bodies were all painted over with many colors, and were decorated with birds' feathers. The natives whom we had taken with us noticed this and informed us that whenever the men are so painted and adorned with plumes they are ready for battle. They were, however, so successful in preventing our landing that we were compelled to direct our stone-hurling machines against them. When they heard the report and noticed its power (for many of them had fallen dead), they fled to the shore. We then held a consultation, and forty-two of us agreed to land after them and valiantly to engage in battle with them. This we did. We leaped to the shore fully armed; and the natives made such stout resistance that the battle raged ceaselessly for almost two hours with varying fortune. We gained a signal victory over them, but only a very few of the natives were killed, and not by us but by our cross-bowmen and gunners, which was due to the fact that they very shrewdly avoided our spears and swords. But at last we made a rush upon them with such vigor that we killed many with the points of our swords. When they saw this, and when very many had been killed and wounded, they turned in flight to the woods and forests, leaving us masters of the field. We did

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not wish to pursue them any further that day because we were too fatigued and preferred to make our way back to our ships. And the joy of the seven who had come with us from the mainland was so great that they could scarcely restrain themselves.

Early the next day we saw a great horde of people approaching through the island, playing on horns and other instruments which they use in war, and again painted and wearing birds' feathers. It was a wonderful sight to see. We again discussed what their plans might be, and decided upon the following course of action: to gather our forces quickly if the natives offered us any hostility; to keep constant watch in turns and in the meantime to endeavor to make them our friends, but to treat them as enemies if they rejected our friendship; and finally to capture as many of them as we could and make and keep them as our slaves forever. And so we gathered upon the shore in hollow formation, armed to the teeth. They, however, did not oppose the slightest resistance to our landing, I suppose on account of their fear of our guns. Upon disembarking, fifty-seven strong, we advanced against them in four divisions (each man under his respective captain), and engaged in a long hand-to-hand combat with them.

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After a long and severe struggle, during which we inflicted great loss upon them, we put the rest to flight and pursued them as far as one of their settlements. Here we made twenty-five prisoners, set fire to the village, and returned to the ships with our captives. The losses of the enemy were very many killed and wounded; on our side, however, only one man was killed, and twenty-two were wounded, all of whom have regained their health, with the help of God.

Our arrangements for the return to our fatherland were now complete. To the seven natives who had come with us from the mainland (five of whom had been wounded in the aforesaid battle), we gave seven prisoners, three men and four women. And they, embarking in a boat which they had seized on the island, returned home filled with great joy and with great admiration for our strength. We set sail for Spain, and at last entered the harbor of Cadiz with our two hundred and twenty-two prisoners, on the 25 th day of October, in the year of Our Lord 1499, where we were received with great rejoicing, and where we sold all our prisoners.

And these are what I have deemed to be the more noteworthy incidents of my first voyage.

## The Second Voyage

## The Second Voyage

The following pages contain an account of my second voyage and of the noteworthy incidents which befell me in the course of that voyage.

We set sail from the harbor of Cadiz, in the year of Our Lord 1489 (sic), on a May day As soon as we cleared the harbor, we shaped our course for the Cape Verde Islands; and passing in sight of the islands of the Grand Canary group, we sailed on until we reached the island called Fire Island. Here we took on supplies of fuel and of water, and resumed our voyage with a southwest wind. After nineteen days we reached a new land, which we took to be the mainland. It was situated opposite to that land of which mention has been made in our first voyage; and it is within the Torrid Zone, south of the equinoctial line, where the pole rises five degrees above the horizon beyond every climate. The land is 500 leagues to the southwest of the above-mentioned islands.

We discovered that in this country the day is of the same length as the night on the 27 th of June, when the sun is on the Tropic of Cancer. Moreover, we found that the country is, in great measure, marshy and that it abounds in large rivers, which cause it to have very thick vegetation and very high and straight trees. In fact,
the growth of vegetation was such that we could not at the time decide whether or not the country was inhabited. We stopped our ships and anchored them, and then lowered some of our small boats in which we made for the land. We hunted long for a landing, going here and there and back and forth, but, as has already been said, found the land everywhere so covered with water that there was not a single spot that was not submerged. We saw, however, along the banks of those rivers many indications that the land was not only inhabited, but indeed very thickly populated. We could not disembark to examine such signs of life more closely, and therefore agreed to return to our ships, which we did. We weighed anchor and sailed along the coast with the wind blowing east and southeast, trying time and again, in a course of more than forty leagues, to penetrate into the island itself. But all to no purpose. For we found in that part of the ocean so strong a current flowing from southeast to northwest that the sea was quite unfit for navigation. When we discovered this difficulty, we held a council and determined to turn back and head our ships to the northwest. So we continued to sail along shore and finally reached a body of water having an outer harbor and a most beautiful island at the entrance.

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We sailed across the outer harbor that we might enter the inner haven. In so doing, we noticed a horde of natives on the aforesaid island, about four leagues inland from the sea. We were greatly pleased and got our boats ready to land. While we were thus engaged, we noticed a canoe coming in from the open sea with many persons on board, which made us resolve to attack them and make them our prisoners. We therefore began to sail in their direction and to surround them, lest they might escape us. The natives in their turn bent to their paddles and, as the breeze continued to blow but moderately, we saw them raise their oars straight on high, as if to say that they would remain firm and offer us resistance. I suppose that they did this in order to rouse admiration in us. But when they became aware that we were approaching nearer and nearer, they dipped their paddles into the water and made for the land. Among our ships there was a very swift boat of about forty-five tons, which was so headed that she soon got to windward of the natives. When the moment for attacking them had come, they got ready themselves and their gear and rowed off. Since our ship now went beyond the canoe of the natives, these attempted to effect their escape. Having lowered some boats and filled them with brave men, thinking that we would catch them,

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we soon bore down on them, but though we pursued them for two hours, had not our caravel which had passed them turned back on them they would have entirely escaped us. When they saw that they were hemmed in on all sides by our small boats and by the ship, all of them (about twenty in number) leaped into the water, albeit they were still about two leagues out at sea. We pursued them with our boats for that entire day, and yet we managed to capture only two of them, the rest reaching land in safety.

In the canoe which they had abandoned, there were four youths, who did not belong to the same tribe, but had been captured in another land. These youths had recently had their virile parts removed, a fact which caused us no little astonishment. When we had taken them on board our ships, they gave us to understand by signs that they had been carried off to be devoured, adding that this wild, cruel, and cannibal tribe were called "Cambali."

We then took the canoe in tow, and advanced with our ships to within half a league of the shore, where we halted and dropped our anchors. When we saw a very great throng of people roaming on the shore, we hastened to reach land in our small boats, taking with us the two men we had found in the canoe that we had attacked. The moment we set foot on dry land, they all
fled in great fright to the groves near by and hid in their recesses. We then gave one of the captives permission to leave us, loading him with very many gifts for the natives with whom we desired to be friends, among which were little bells and plates of metal and numerous mirrors. We instructed him, furthermore, to tell the natives who had fled not to entertain any fear on our account, because we were greatly desirous of being their friends. Our messenger departed and fulfilled his mission so well that the entire tribe, about four hundred in number, came to us from out of the forest, accompanied by many women. Though unarmed, they came to where we were stationed with our small boats, and we became so friendly that we restored to them the second of the two men whom we had captured, and likewise sent instructions to our companions, in whose possession it was, to return to the natives the canoe which we had run down. This canoe was hollowed out of the trunk of a single tree, and had been fashioned with the greatest care. It was twenty-six paces long and two ells (bracchia) wide. As soon as the natives had recovered possession of their canoe and had placed it in a secure spot along the river bank, they unexpectedly fled from us and would no longer have anything to do with us. By such an uncivilized

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act, we knew them to be men of bad faith. Among them we saw a little gold, which they wore suspended from their ears.

We left that country, and after sailing about eighty leagues we found a safe anchorage for our ships, upon entering which we saw such numbers of natives that it was a wonderful sight. We immediately made friends with them and visited in their company many of their villages, where we were honorably and heartily welcomed. Indeed, we bought of them five hundred large pearls in return for one small bell, which we gave them for nothing. ${ }^{1}$ In that land they drink wine made from fruits and seeds, which is like that made from chickpeas, or like white or red beer. The better kind of wine, however, is made from the choicest fruits of the myrrh tree. We ate heartily of these fruits and of many others that were both pleasant to the taste and nourishing, for we had arrived at the proper season. This island greatly abounds in what they use for food and utensils, and the people themselves were well mannered and more peacefully inclined than any other tribe we met.

We spent seventeen days in this harbor very pleasantly, and each day a great number of
'So the Latin text, which seems to be in error. The Italian version having, "which they gave us for nothing."

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people would come to us to marvel at our appearance, the whiteness of our skins, our clothes and weapons, and at the great size of our ships. Indeed, they even told us that one of the tribes hostile to them lived further to the west, and possessed an infinite number of pearls; and that those pearls which they themselves possessed had been taken from these enemies in the course of wars which they had waged against them. They gave us further information as to how the pearls were fished and how they grew, all of which we found to be true, as your Majesty will learn later on.

We left that harbor and sailed along the coast, on which we always saw many people. Continuing on our course, we entered a harbor for the purpose of repairing one of our ships. Here again we saw many natives, whom we could neither force nor coax to communicate with us in any way. For, if we made any attempt to land, they resisted most desperately; and if they could not withstand our attack, they fled to the woods, never waiting for us to approach any nearer. Realizing their utter savageness, we departed. While we were thus sailing on, we saw an island fifteen leagues out at sea and resolved to visit it and learn whether or not it was inhabited. Upon reaching it we found it to be inhabited by a race of most

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animallike simplicity, and at the same time very obliging and kind, whose rites and customs are the following:
on the rites and customs of this tribe.
They were animallike in their appearance and actions, and had their mouths full of a certain green herb which they continually chewed upon as animals chew their cud, with the result that they could not speak. Moreover, each one of them had suspended from his neck two small dried gourds, one of which contained a supply of that herb which they were chewing, while the other contained a kind of white flour resembling plaster or white lime. Every now and then they would thrust into the gourd filled with flour a small stick whose end they had moistened in their mouths. By so doing they managed to gather some of the flour and put it into their mouths, powdering with this flour that herb which they were already chewing. They repeated this process at short intervals; and though we wondered greatly, we could not see any reason for their so doing, nor could we understand their secret.

This tribe came to us and treated us as familiarly as if they had frequently had dealings with us and as if they had long been friendly with us. We strolled with them along the shore, talking

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the while, and expressed our desire to drink some fresh water. To which they answered, by signs, that there was none in their country, offering us in its stead some herb and flour such as they were chewing. We now understood that since their country lacked water, they chewed that herb and flour to quench their thirst. And so it happened that, though we walked along that shore in their company for a day and a half, we never came across any spring water, and learned that such water as they did drink was the dew which gathered upon certain leaves having the shape of a donkey's ears. During the night these leaves were filled with dew, of which the people then drank, and it is very good. But in many places these leaves are not found.

This tribe is entirely unacquainted with the solid products of the earth, and live chiefly on the fish which they catch in the sea. Indeed there are many expert fishermen among them, and their waters abound in fish, of which they offered us many turtles and many other most excellent varieties. The women of the tribe, however, do not chew the herb as the men do ; in its place, each one of them carries a single gourd filled with water, of which they partake from time to time. They do not have villages composed of individual houses, nor do they have even small huts. Their only shelter is made of

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large leaves, which serve indeed to protect them against the heat of the sun, but are not a sufficient protection against the rains, from which it may be deduced that there is little rain in that country. When they come down to the sea to fish, each one brings with him a leaf so large that, by fixing one end of it in the ground and then turning the leaf to follow the sun, he procures underneath its shade ample relief from the great heat. In this island, finally, there are countless species of animals, all of which drink the water of the marshes.

Seeing, however, that there was nothing to be gained on that island, we left it and found another one. We landed and started to search for some fresh water to drink, believing the island to be uninhabited because we had seen no one as we approached it. But as we were walking along the shore, we came upon some very large footprints, from which we judged that, if the other members of the body were in proportion to the size of the feet, the inhabitants must be very large indeed. Continuing our walk along the sands, we discovered a road leading inland, along which nine of us decided to go to explore the island, because it did not seem to be very large nor very thickly populated. After advancing along that road about a league, we saw five houses situated in a valley

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and apparently jnhabited. Entering them we found five women, two of them old and three young; and all of them were of such large and noble stature that we were greatly astonished. As soon as they laid eyes upon us they were so overcome with surprise that they had no strength left for flight. Thereupon the old woman addressed us soothingly in their own tongue, and, gathering in one hut, offered us great quantities of food. All of them, in truth, were taller than a very tall man; indeed, they were as tall as Francesco degli Albizi, and better knit and better proportioned than we are. When we had observed all this, we agreed to seize the young girls by force and to bring them to Castile as objects of wonder.

While we were still deliberating, behold about thirty-six men began to file through the door of the house, men much larger than the women and so magnificently built that it was a joy to see them. These men caused us such great uneasiness that we considered it safer to return to our ships than to remain in their company. For they were armed with immense bows and arrows, and with stakes and staffs the size of long poles. As soon as they had all entered, they began to talk among themselves as if plotting to take us prisoners, upon seeing which we, too, held a consultation. Some were

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of the opinion that we should fall upon them just where they were, within the hut itself; others disapproved of this entirely, and suggested that the attack be made out of doors and in the open; and still others declared that we should not force an engagement until we learned what the natives decided to do. During the discussion of these plans we left the hut disguising our feelings and our intentions, and began to make our way back to the ships. The natives followed at a stone's throw, always talking among themselves. I believe, however, that their fear was no less than ours; for, although they kept us in sight, they remained at a distance, not advancing a single step unless we did likewise. When, however, we had reached the ships and had boarded them in good order, the natives immediately leaped into the sea and shot very many of their arrows after us. But now we had not the slightest fear of them. Indeed, rather to frighten than to kill them, we shot two of our guns at them; and upon hearing the report they hastily fled to a hill nearby. Thus it was that we escaped from them and departed. These natives, like the others, also go about naked; and we called the island the Island of the Giants, on account of the great size of its inhabitants.

We continued our voyage further, sailing a

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little further off shore than before and being compelled to engage with the enemy every now and then because they did not want us to take anything out of their country. By this time thoughts of revisiting Castile began to enter our minds, particularly for this reason, that we had now been almost a year at sea and that we had very small quantities of provisions and other necessaries left. Even what still remained was all spoiled and damaged by the extreme heat which we had suffered. For, ever since our departure from the Cape Verde Islands, we had continually sailed in the Torrid Zone, and had twice crossed the equator, as we have said above.

While we were in this state of mind, it pleased the Holy Spirit to relieve us of our labors. For, as we were searching for a suitable haven wherein to repair our ships, we reached a tribe which received us with the greatest demonstrations of friendship. We learned, moreover, that they were the possessors of countless large Oriental pearls. We therefore remained among them forty-seven days, and bought il9 marcs of pearls at a price which, according to our estimation, was not greater than forty ducats, for we gave them in payment little bells, mirrors, bits of crystals, and very thin plates of electrum. Indeed, each one would give all the pearls he had for one little bell. We also learned from

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them how and where the pearls were fished, and they gave us several of the shells in which they grow. We bought some shells in addition, finding as many as 130 pearls in some, and in others not quite so many. Your Majesty must know that unless the pearls grow to full maturity and of their own accord fall from the shells in which they are born, they cannot be quite perfect. Otherwise, as I have myself found by experience time and again, they soon dry up and leave no trace. When, however, they have grown to full maturity, they drop from the fleshy part into the shell, except the part by which it hung attached to the flesh; and these are the best pearls.

At the end of the forty-seven days, then, we took leave of that tribe with which we had become such good friends, and set sail for home on account of our lack of provisions. We reached the island of Antiglia, which Christopher Columbus had discovered a few years before. Here we remained two months and two days in straightening out our affairs and repairing our ships. During this time we endured many annoyances from the Christians settled on that island, all of which I shall here pass over in silence that I may not be too prolix. We left that island on the 27 th of July, and after a voyage of a month and a half we at last entered

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the harbor of Cadiz on the 8th of September, where we were received with great honor.

And so ended my second voyage, according to the will of God.

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I had taken up my abode in Seville, desiring to rest myself a little, to recover from the toils and hardships endured in the voyages described above, intending finally to revisit the land of pearls. But Fortune was by no means done with me. For some reason unknown to me she caused his most serene Lordship, Manuel, King of Portugal, to send me a special messenger bearing a letter which urgently begged me to go to Lisbon as soon as possible, because he had some important facts to communicate to me. I did not even consider the proposition, but immediately sent word by the same messenger that I was not feeling very well and in fact was ill at that moment; adding that, if I should regain my health and if it should still please His Royal Majesty to enlist my services, I should gladly undertake whatever he wished. Whereupon the King, who saw that he could not bring me to him just then, sent to me a second time, commissioning Giuliano Bartolomeo Giocondo',

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then in Lisbon, to leave no stone unturned to bring me back to the King. Upon the arrival of the said Giuliano I was moved by his entreaties to return with him to the King-a decision which was disapproved of by all those who knew me. For I was leaving Castile, where no small degree of honor had been shown me and where the King himself held me in high esteem. What was even worse was that I departed without taking leave of my host. I soon presented myself before King Manuel, who seemed to rejoice greatly at my arrival. He then repeatedly asked me to set out with three ships which had been got ready to start in search of new lands. And so, inasmuch as the entreaties of Kings are as commands, I yielded to his wishes.

THE START OF THE THIRD VOYAGE
$W_{E}$ set sail in three ships from the harbor of Lisbon, on the 1oth of May, 1501, directing our course toward the islands of the Grand Canary. We sailed along in sight of these islands without stopping, and continued our westward voyage along the coast of Africa. We delayed three days in these waters, catching a great number of species of fish called Parghi. Proceeding thence we reached that region of Ethiopia which is called Besilicca, situated in

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the Torrid Zone, within the first climate, and at a spot where the North Pole rises fourteen degrees above the horizon. We remained here eleven days to take on supplies of wood and of water, because it was my intention to sail southward through the Atlantic Ocean. We left that harbor of Ethiopia and sailed to the southwest for sixty-seven days, when we reached an island 700 leagues to the southwest of the above-mentioned harbor. During these days we encountered worse weather than any human being had ever before experienced at sea. There were high winds and violent rainstorms which caused us countless hardships. The reason for such inclement weather was that our ships kept sailing along the equinoctial line, where it is winter in the month of June and the days are as long as the nights, and where our own shadows pointed always to the south.

At last it pleased God to show us new land on the 17th of August. We anchored one league and a half out at sea, and then, embarking in some small boats, we set out to see whether or not the land was inhabited. We found that it was thickly inhabited by men who were worse than animals, as Your Royal Majesty will learn forthwith. Upon landing we did not see any of the natives, although from many signs which we noticed we concluded that the country
must have many inhabitants. We took possession of the coast in the name of the most serene King of Castile, and found it to be a pleasant and fruitful and lovely land. It is five degrees south of the Equator. The same day we returned to our ships; and since we were suffering from the lack of fuel and water, we agreed to land again the following day and provide ourselves with what was necessary. Upon landing we saw on the topmost ridge of a hill many people who did not venture to descend. They were all naked and similar in both appearance and color to those we had met in the former voyages. Though we did our best to make them come down to us and speak with us, we could not inspire them with sufficient confidence. Seeing their obstinacy and waywardness, we returned to our ships at night, leaving on the shore (as they looked on) several small bells and mirrors and other such trifles.

When they saw that we were far out at sea, they came down from the mountain to take the things we had left them, and showed great wonder thereat. On that day we took on a supply of water only. Early in the morning of the next day, as we looked out from our ships, we saw a larger number of natives than before, building here and there along the shore fires which made a great deal of smoke. Supposing

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that they were thus inviting us, we rowed to the land. We now saw that a great horde of natives had collected, who, however, kept far away from us, making many signs that we should go with them into the interior. Wherefore two of our Christians declared themselves ready to risk their lives in this undertaking and to visit the natives in order to see for themselves what kind of people they were and whether they possessed any riches or aromatic spices. They begged the commander of the fleet so earnestly that he gave his consent to their departure. The two then prepared themselves for the expedition, taking along many trifles, for barter with the natives, and left us, with the understanding that they should make sure to return after five days at the most, as we should wait for them no longer.

They accordingly began their journey inland, and we returned to our ships, where we waited for eight whole days. On almost each of these days a new crowd would come to the shore, but never did they show a desire to enter into conversation with us. On the seventh day, while we again were making our way to the shore, we discovered that the natives had brought all their wives with them. As soon as we landed they sent many of their women to talk with us. But even the women did not trust us sufficiently. While we were waiting for them to approach,

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we decided to send to them one of our young men who was very strong and agile ; and then, that the women might be the less fearful, the rest of us embarked in our small boats. The young man advanced and mingled among the women ; they all stood around him, and touched and stroked him, wondering greatly at him. At this point a woman came down from the hill carrying a big club. When she reached the place where the young man was standing, she struck him such a heavy blow from behind that he immediately fell to the ground dead. The rest of the women at once seized him and dragged him by the feet up the mountain, whereupon the men who were on the mountain ran down to the shore armed with bows and arrows and began to shoot at us. Our men, unable to escape quickly because the boats scraped the bottom as they rowed, were seized with such terror that no one had any thought at the moment of taking up his arms. The natives had thus an opportunity of shooting very many arrows at us. Then we shot four of our guns at them; and although no one was hit, still, the moment they heard the thunderous report, they all fled back to the mountain. There the women, who had killed the youth before our eyes, were now cutting him in pieces, showing us the pieces, roasting them at a large

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fire which they had made, and eating them. The men, too, made us similar signs, from which we gathered that they had killed our two other Christians in the same manner and had likewise eaten them. And in this respect at least we felt sure that they were speaking the truth.

We were thoroughly maddened by this taunting and by seeing with our own eyes the inhuman way in which they had treated our dead. More than forty of us, therefore, determined to rush to the land and avenge such an inhuman deed and such bestial cruelty. But the commander of our ship would not give his consent; and so, being compelled to endure passively so serious and great an insult, we departed with heavy hearts and with a feeling of great shame, due to the refusal of our captain.

Leaving that land we began to sail between the East and South because the coast line ran in that direction. We made many turns and landings, in the course of which we did not see any tribe which would have any intercourse with us or approach us. We sailed at last so far that we discovered a new land stretching out toward the southwest. Here we rounded a cape (to which we gave the name St. Vincent) and continued our voyage in a southwesterly direction. This Cape St. Vincent is 150 leagues to the

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southeast of the country where our Christians perished, and eight degrees south of the Equator. As we were sailing along in this manner, one day we noticed on the shore a great number of natives gazing in wonder at us and at the great size of our ships. We anchored in a safe place and then, embarking in our small boats, we reached land. We found the people much kinder than the others; for our toilsome efforts to make them our friends were at last crowned with success. We remained five days among them trading and otherwise dealing with them, and discovered large hollow reed-stalks, most of them still green, and several of them dry on the tops of the trees. We decided to take along with us two of this tribe that they might teach us their tongue ; and, indeed, three of them volunteered to return to Portugal with us.

But, since it wearies me to describe all things in detail, may it suffice your Majesty to know that we left that harbor, sailing in a southwesterly direction, keeping always within sight of land, entering many harbors, making frequent landings, and communicating with many tribes. In fact, we sailed so far to the south that we went beyond the Tropic of Capricorn. When we had gone so far south that the South Pole rose thirty-two degrees above the horizon, we
lost sight of the Lesser Bear, and the Great Bear itself appeared so low as to be scarcely visible above the horizon. We were then compelled to guide ourselves by the stars of the South Pole, which are far more numerous and much larger and more brilliant than the stars of our Pole. I therefore made a drawing of very many of them, especially of those of the first magnitude, together with the declinations of their orbits around the South Pole, adding also the diameters and semi-diameters of the stars themselves-all of which can be readily seen in my "Four Voyages." In the course of the voyage from Cape St. Augustine, we sailed 700 leagues-100 toward the west and 600 toward the southwest. Should any one desire to describe all that we saw in the course of that voyage, paper would not suffice him. We did not, however, discover anything of great importance with the exception of an infinite number of cassia trees and of very many others which put forth a peculiar kind of leaf. We saw, in addition, very many other wonderful things which it would be tedious to enumerate.

We had now been on our voyage for almost ten months; and, seeing that we discovered no precious metals, we decided to depart thence and to roam over another portion of the sea. As soon as we had come to this conclusion, the
word went to each one of our ships that whatever I should think necessary to command in conducting this voyage should be fulfilled to the letter. I therefore immediately gave a general order that all should provide themselves with fuel and water for six months, for the different captains had informed me that their ships could remain at sea only that much longer.

As soon as my orders had been obeyed, we left that coast and began our voyage to the south on the $I_{3}$ th of February, in other words, when the sun was approaching the equinoctial line and returning to this Northern Hemisphere of ours. We sailed so far that the South Pole rose fifty-two degrees above the horizon, and we could no longer see the stars of the Great or the Lesser Bear. For we were then (the 3rd of April) 500 leagues distant from that harbor from which we had begun our southward voyage. On this day so violent a storm arose that we were forced to gather in every stitch of canvas and to run on with bare masts, the southwest wind blowing fiercely and the sea rolling in great billows, in the midst of a furious tempest. The gale was so terrible that all were alarmed in no slight degree. The nights, too, were very long. For on the 7 th of April, when the sun was near the end of Aries, we found that the night was fifteen hours long. Indeed, as
your Majesty is very well aware, it was the beginning of winter in that latitude. In the midst of this tempest, however, on the 2nd of April, we sighted land, and sailed along shore for nearly twenty leagues. But we found it entirely uninhabited and wild, a land which had neither harbors nor inhabitants. I suppose it was for the reason that it was so cold there that no one could endure such a rigid climate. Furthermore, we found ourselves in such great danger and in the midst of so violent a storm that the different ships could scarcely sight one another. Wherefore the commander of the fleet and I decided that we should signal to all our shipmates to leave that coast, sail out to sea, and make for Portugal.

This plan proved to be a good and necessary one; for, had we remained there one single night longer, we should all have been lost. The day after we left, so great a storm arose that we feared we should be entirely submerged. For this reason we then made many vows to go on pilgrimages and performed other ceremonies, as is customary with sailors. The storm raged round us for five days, during which we could never raise our sails. During the same time we went 250 leagues out to sea, always getting nearer and nearer the equinoctial line, where both sea and sky became more moderate. And
here it pleased God on high to deliver us from the above-mentioned dangers. Our course was shaped to the north and northeast, because we desired to make the coast of Ethiopia, from which we were then distant 1,300 leagues, sailing through the Atlantic Ocean. By the grace of God we reached that country on the roth of May. We rested there for fifteen days upon a stretch of coast facing the south and called Sierra Leone. Then we took our course toward the Azores, which are 750 leagues from Sierra Leone. We reached them about the end of July and again rested for fifteen days. We then set sail for Lisbon, from which we were 300 leagues to the west. And at last, in the year 1502, we again entered the port of Lisbon, in good health as God willed, with only two ships. The third ship we had burned at Sierra Leone, because she was no longer seaworthy.

In this third voyage, we remained at sea for nearly sixteen months, during eleven of which we sailed without being able to see the North Star nor the stars of the Great and the Lesser Bear. At that time we steered by the star of the South Pole.

What I have related above I have deemed the most noteworthy events of my third voyage.

## The Fourth Voyage

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I must still relate what I saw in my third (sic) voyage. But, in truth, since I have already been tired out by the length of the preceding narratives, and since this voyage did not at all end as I had hoped, on account of an accident that befell us in the Atlantic Ocean, I may be permitted (I trust), to be somewhat brief.

We left Lisbon in six ships with the intention of exploring an island situated toward the horizon and known as Melcha. This island is famous for its wealth, because it is a stopping place for all ships coming from the Gangetic and Indian Seas, precisely as Cadiz is the port for all vessels going from east to west, or in the opposite direction, as is the case with those ships which sail hence for Calicut. This island of Melcha is further to the west than Calicut and more to the south, which we knew from the following fact: that it is situated within sight of the thirty-third degree of the Antarctic Pole.

And so, on the roth of May, 1503 , we set sail from Lisbon (as I have said above), and made for the Cape Verde Islands, where we took on some needed provisions and many other necessary stores. We remained there twelve days, and then set sail with a south wind, because the commander of the fleet, who was
haughty and headstrong, issued orders that we should make for Sierra Leone, on the southern coast of Ethiopia. There was no necessity for this, and all of us were unanimously opposed to such a course ; but he insisted upon it merely to impress upon us that he had been placed in command of us and the six ships. We made good speed, and just as we were at last coming within sight of our destination, so great and violent a tempest arose, and so heavy a gale began to rage, and Fortune became so unkind, that for four days we could not land in spite of the fact that we could see the coast during the whole of that time. Finally we were obliged to give up our attempts and to continue in what should have been our course from the beginning.

We therefore resumed our voyage with the Suduesius wind blowing (a wind which points between the south and the southwest), and sailed through those difficult seas for 300 leagues. In consequence we went across the Equator by almost three degrees, where land was seen by us twelve leagues off. We were greatly astonished at the sight. It was an island situated in the middle of the sea, very high and remarkable in appearance. It was no larger than two leagues in length by one in width. No man had ever been or lived on that island, and yet it

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was to us a most unfortunate island. Upon it the commander of our fleet lost his ship, all owing to his own obstinate mind and will. His ship struck upon a rock, sprung leaks, and sank during the night of St. Lawrence, the loth of August. With the exception of the crew nothing was saved. The ship was of 300 tons, and the strength of our whole fleet lay in her.

While we were all exerting ourselves to see if we could not, perhaps, float her again, the above-mentioned commander ordered me (among other things) to go in a rowboat to the island in search of a good harbor where we might all draw up our ships in safety. That same commander, however, did not wish me to go with my own ship, because it was manned by nine sailors and was then busily engaged in assisting the endangered ship. He insisted that I go and find such a harbor, where he would restore my ship to me in person. Upon receiving these orders, I went to the island as he desired, taking with me about half the number of my sailors. The island was four leagues away, and hastening thither I discovered a very fine harbor where we might safely anchor our entire fleet. I had now discovered the harbor, and there I spent eight days waiting for the said commander and the rest of our company. I was greatly dis-

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turbed when they did not appear, and those who were with me became so alarmed that they could not be appeased in any way.

While we were in this state of anxiety, on the eighth day we saw a ship coming in over the sea. We at once set out to meet them in order that they might see us, feeling confident and at the same time hoping that they would take us with them to some better harbor. When we had gotten near and had exchanged greetings, those on board informed us that the commander's ship had been lost at sea, the crew alone being saved. Your Majesty can readily imagine the great anxiety which seized me at this report, when I realized that I was 1,000 leagues distant from Lisbon (to which I must needs return) in remote and far-off waters. Nevertheless, we resigned ourselves to the fate that had come upon us and determined to go on. First of all we returned to the island, where we gathered supplies of wood and water for the ship. The island, indeed, was quite uninhabited and most inhospitable ; but it had a great deal of spring water, countless trees, and numberless land and sea birds, which were so tame that they permitted us to take them in our hands. We, therefore, took so many of them that we entirely filled one of the rowboats. The only other animals we discovered on that

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island were very large mice, lizards with forked tails, and several serpents.

When we had got our provisions on board, we set sail toward the south and southwest; for we had received orders from the King, that, unless some great danger made it impossible, we should follow in the path of our former voyage. Setting out, therefore, in this direction, we at last found a harbor which we called the Bay of All Saints. Indeed, God had granted us such favorable weather that in less than seventeen days we reached this port, which is 300 leagues distant from the above-mentioned island. In the harbor we found neither the commander-in-chief nor any one else of our company, though we waited for them for two months and four days. At the end of this period, seeing that no one arrived there, my companions and I decided to sail further along the coast. After sailing for 260 leagues, we entered a harbor where we determined to build an outpost. Having done so, we left behind in this fort the twenty-four Christians who had been the crew of the luckless ship of our commander-in-chief. We remained in that harbor five months, occupied in constructing the said fort and in loading our ships with brazil-wood. We tarried thus long because our sailors were few in number and because, owing to the lack of many necessary

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parts, our ships could not proceed further. But when all was done, we agreed to return to Portugal, to do which would require a wind between north and northeast.

We left in the fort the twenty-four Christians, giving them twelve guns and many more arms, and supplying them with provisions to last them six months. During our stay we had made friends with the tribes of that country, of which we have here made very little mention, notwithstanding that we saw great numbers of them and had frequent dealings with them. Indeed, we went about forty leagues into the interior in company with thirty of them. I saw on this expedition very many things which I now pass over in silence, reserving them for my book entitled "The Four Voyages." That country is eight degrees south of the equator and thirtyfive degrees west of the meridian of Lisbon, according to our instruments.

We set sail hence with the Nornordensius wind (which is between the north and the northeast) shaping our course for the city of Lisbon. At last, praise be to God, after many hardships and many dangers we entered this harbor of Lisbon in less than seventy-seven days, on the 28th of June, 1504 . Here we were received with great honor and with far greater festivities than one would think possible. The

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reason was that the entire city thought that we had been lost at sea, as was the case with all the rest of our fleet, who had perished owing to the foolish haughtiness of our commander-inchief. Behold the manner in which God, the just Judge of all, rewards pride!

I am now living at Lisbon, not knowing what next your most serene Majesty will plan for me to do. As for myself, I greatly desire from now on to rest from my many hardships, in the meantime earnestly commending to your Majesty the bearer of the present letter.

Amerigo Vespucci, in Lisbon.
Greetings from Walter Lud, Nicholas Lud, and Martin Ilacomilus




Finished April 25 MDCVII

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[^0]:    ${ }^{1}$ The Strasburg edition appeared in 1509 , the undated Lyons edition about 1518 .
    ${ }^{2}$ Detailed statements regarding the differences in the two editions and their readings may be found in the following: [M. D'Avezac], Martin Hylacomylus Waltzemuiller, ses ouvrages et ses collaborateurs, Paris, 1867 ; H. Harrisse, Bibliotheca Americana Vetustissima, New York, 1866, and Additions, Paris, 1872 ; Ed. Meaume, Recherches critiques et bibliographiques sur Améric Vespuce et ses Voyages (Mémoires Soc. d'Archéologie Lorraine, $3^{e}$ serie, t. xvi, Nancy, 1888 ; J. Boyd-Thacher, The Continent of America, Its Discovery and Its Baptism, New York, 1896; F. v. Wieser in his introduction to the facsimile edition of the Cosmographia Introductio in the collection, Drucke und Holzschnitte des XV. und XVI. Jahrhunderts in getreuer Nachbildung, Strasburg, T. H. Ed. Heitz, 1907.

[^1]:    ${ }^{2}$ See D'Avezac, 1.c., p. 65.

[^2]:    ${ }^{1}$ He himself spells his German name, Waldseemuiller, not Waltzenmuiller ; and its Gracized form adopted according to the humanists of the day, Ilacomilus, not Hylacomilus.
    ${ }^{2}$ See P. Albert-Uber die Herkunft Martin Walzenmüller's, genannt Hylacomylus. (Zeitschrift für die Geschichte des Oberrheins, N. F., xv, Karlsruhe, 1900, p. $510 \mathrm{sqq}$. .)
    ${ }^{3}$ It was Alex. v. Humboldt (l.c., ii, 362 ) who first drew attention to this entry in the University of Freiburg, thereby proving that the author Hylacomilus, known from his earlier works, was identical with this Waltzenmuiller. See the lately published book: Die Matrikel der Universität Freiburg i. Br. 1460-1656, by Prof. Dr. H. Mayer, Freiburg, 1907.

[^3]:    ${ }^{1}$ See Gallois, Bulletin, l.c., 22 I sqq.
    ${ }^{2}$ See Ringmann's letter from Strasburg, dated August I, 1505, in his edition, relative to the third expedition of Amerigo Vespucci, De ora Antarctica, Argentince 1505.
    ${ }^{\text {s }}$ See Waldseemüller's letter to Amerbach, cited above, dated April 5, 1507.

[^4]:    ${ }^{1}$ See p. 23 of this facsimile edition. The expression "generale" is also used elsewhere as synonymous with "Map of the World " and may be found in the letter of Waldseemuller to Amerbach, previously cited, and in the poem of dedication by Ringmann to the Emperor Maximilian I. (See 1.c., p. 2.)

[^5]:    ${ }^{1}$ See p. 4 I of our facsimile.
    ${ }^{2}$ l.c., p. 42 .

[^6]:    ${ }^{1}$ Concerning this work of the utmost rarity and interest see R. H. Major, Memoir on a mappemonde by Leonardo da Vinci Archæologia Vol. XL. (London, 1865) p. 21 and 31 ; Harrisse, B.A.V. p. 99 seq. D'Avezac, l.c., 65 ; F. v. Wieser, Magalhæs-Strasse, p. ix 8.
    ${ }^{2}$ Cf. on this point G. Uzielli, Toscanelli 1893, p. 13 et seq., 23 et seq.; L. Gallois, l.c., Bulletin 1900, p. 72.

[^7]:    ${ }^{2}$ Ubi recordabitur, quod olim mutuam habuerimus inter nos amiciciam tempore iuventutis nostra, cum grammatica rudimenta imbibentes sub probata vita et doctrina venerabilis et religiosi fratris de S. Marco Fratris Georgii Anthonii Vesputii avunculi mei pariter militaremus. (See p. 43 of facsimile.)
    ${ }^{2}$ See Bandini, Vita et Lettere di Amerigo Vespucci, Florence, 1745, p. xxv ; Fr. Bartolozzi, Ricerche istorico-critiche circa alle scoperte di Amerigo Vespucci, Florence, 1789, p. 67.

[^8]:    ${ }^{1}$ Hunc in modum terra iam quadripartita cognoscitur; et sunt tres primae partes continentes, quarta est insula. See p. 30 of the facsimile.
    ${ }^{2}$ Compare, for instance, the text at the lower leff-hand corner of the map with p. 45 of our facsimile print.
    ${ }^{3}$ See Fischer and v. Wieser, The Oldest Map with the Name America, p. ii and Tabula 23.

[^9]:    ${ }^{1}$ See A. Wolkenhauer, Über die ältesten Reisekarten von Deutschland aus dem Ende des 15. u. dem Anfang des 16. Fahrhunderts (Deutsche Geographische Blätter, vol. xxvi, fasc. 3 \& 4, Bremen, 1903).

[^10]:    ${ }^{1}$ Appearing first in Krakow: Mattbias Scharfenbergius excud. 1530.
    ${ }^{2}$ For more detailed indications about the propagation and influence of Waldseemüller's drawing of the world, see Fischer and v. Wieser, l.c., p. 36 et seq.

[^11]:    ${ }^{1}$ Breusing, Leitfaden durch das Wiegenalter der Kartographie, Frankfurt, 1883, p. 31.
    ${ }^{2}$ Elter, l.c., pp. 21, 23.

[^12]:    ${ }^{1}$... nos in depingendis tabulis typi generalis non omnimodo sequutos esse Ptholomcum presertim circa novas terras, wbi in cartis marinis aliter animadvertimus aquatorem constitui quam Ptholomaus fecerit. . . . Et ita quidem temperavimus rem ut in plano circa novas terras et alia qucpiam Ptholomeum, in solido vero, quod plano additur, descriptionem Americi subsequentem sectati fuerimus. See p. 37 et seq. of facsimile.
    ${ }^{2}$ Plate II gives these globe-strips on a scale of $2: 3$ of the original.

[^13]:    ${ }^{1}$ F. A. de Varnhagen, Fo. Schöner o P. Apianus (Bienewitz): Infuencia de um o outro e de varios de seus contemporaneos. Vienna, 1872, p. 47 et seq. L. Gallois, Les Géographes allemands de la Renaissance, Paris, 1890, p. 48 et seq., and Bulletin, 1.c., p. 78 et seq.
    ${ }^{2}$ Cosmographice Introductio. . . . . Pressit apud Argentoracos hoc opus Ingeniosus vir Foannes Grüniger. Anno post natum salvatorem super sesquimillesimum nono. Harrisse, B. A. V., p. 116.
    ${ }^{3}$ Disz buichlin saget wie die zwen durchlüchtigsten herren herr Fernandus K. zü Castilien und herr Emanuel K. zü Portugal baben das weyte mör ersüchet unnd funden vil Insulen unnd ein Nüwe welt von wilden nackenden Leüten, vormals unbekant. Gedruckt zü Strassburg durch Fohannen Gruininger. Im iar MCCCCIX uff mitfast. Wie du aber dye Kugel und beschreibung der gantzenn welt virston sollt, würst du hernach finden unnd lesen. Harrisse, Add., p. 43; B. A. $V$., p. 118 , the same title can be found, only it is not uff mitfast - but uff Letare.

    - Der welt kugel Beschrybung : der Welt und dess gantzen Ert-

[^14]:    ${ }^{1}$ Formerly authors regarded the globe-strips of the HauslabLiechtenstein Collection 'as belonging to the descriptions of the glabe by Grieninger, as for example, D'Avezac, Bull. Soc. géogr., Paris, 1872 , p. 16.

[^15]:    ${ }^{1}$ "Cosmographiam universalem tam solidam quam planam non sine gloria et laude per orbem disseminatam." These words are found in Waldseemüller's treatise, "Architecture et Perspectiva Rudimenta," published, 1508, in the Strasburg edition of the Margarita philosophica.

[^16]:    ${ }^{1}$ This map of Mercator, only one copy of which exists (in the library of the American Geographical Society), is reproduced, e.g., in the Facsimile-Atlas of Nordenskiöld, plate xiii.

[^17]:    ${ }^{1}$ The passage referred to is in the sixth book, chapter xxviii, of the Commentaries.

[^18]:    ${ }^{1}$ Error for $23^{\circ} 51^{\prime}$. ${ }^{2}$ Error for $23^{\circ} 51^{\prime}$.

[^19]:    ${ }^{1}$ The peninsula of Malacca in India is probably meant.

    - The people of what is now the island of Ceylon.

[^20]:    - Error for $42^{\circ} 18^{\prime}$.

[^21]:    ${ }^{1}$ Vespucci names the wind according to the point toward which it blows.

[^22]:    ${ }^{1}$ The Italian text gives iuca, cazabi, and ignami.

[^23]:    ${ }^{1}$ Probably a relative of Fra Giovanni, a Dominican, later Franciscan friar, architect, and archæologist, associated with Raphael and Sangallo in the erection of St. Peter's, builder of a bridge across the Seine and collector of more than 2,000 ancient inscriptions ( 1430 ?-1515?).

[^24]:    ${ }^{1}$ Now Goree.

